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U.S. Salmon Consumer Survey

Economic and Commercial Analysis
Report No. 23

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U.S. Salmon Consumer Survey

Market Analysis Group
Commercial and Market Analysis Division

Economic and Commercial Analysis Directorate
Department of Fisheries and Oceans
Ottawa, Ontario
K1A 0E6

August 1989

Report prepared by:

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The DPA Group Inc.
Vancouver, B.C.

(Department of Fisheries and Oceans
contract no. FP 802-8-2674)

Economic and Commercial Analysis
Report No. 23

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FOREWORD

This study was commissioned by the Department of Fisheries and Oceans to obtain a better understanding of the American seafood consumer and current trends in salmon products, prices and supplies.

This report provides a comprehensive look at salmon in the United States, and contains marketing information on a subject which we hope will be of considerable interest to the Canadian commercial fishing sector.

PRÉFACE

Cette étude a été commandée par le Ministère des Pêches et Océans afin de mieux comprendre les habitudes de consommation des produits de la mer des Américains et de mieux saisir les tendances actuelles des prix et de l'offre du saumon.

Ce rapport donne un aperçu détaillé du saumon au État-Unis et contient des renseignements sur la commercialisation de ce produit. Nous espérons qu'il s'avérera utile au secteur de la pêche commerciale au Canada.

ACKNOWLEDGEMENTS

The consultants gratefully acknowledge the contribution to the study of members of a steering committee. The committee was comprised of Mr. Peter Leitz, Ms. Nancy Dale and Ms. Sandra Harris, representing the Department of Fisheries and Oceans; and Mr. Alan Archibald, Marketing Director of the B.C. Salmon Farmers' Association.

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EXECUTIVE SUMMARY

ABSTRACT

A mail survey of 5,400 consumers in five major cities in the United States was commissioned by the Department of Fisheries and Oceans to obtain information on markets for fresh/frozen salmon. The analysis of the information assembled leads to several important conclusions with respect to behaviour, attitudes and perceptions of American salmon consumers, non-salmon seafood consumers and non-seafood consumers.

INTRODUCTION

Demand in the United States for fresh/frozen salmon has been increasing in recent years. The increase in demand has been met with salmon imports from Norway, Chile and Canada. The United States, a traditional market for wild Canadian fresh/frozen salmon, has recently become the target market for production of farmed Chinook, Coho and Atlantic salmon. From 1985 to 1988 Canada's share of total U.S. imports of fresh/frozen salmon rose from 38% to 45%. Market research conducted to date suggests that Canada should continue to develop this market. However, this research has been conducted mostly with buyers at restaurant and retail levels and has not been substantiated by much consumer level research. As a result, the Department of Fisheries and Oceans commissioned the DPA Group Inc. to collect information on consumer demographics, product preference and consumption patterns, and likely responses to promotion and to various pricing regimes.

METHODOLOGY

A mail survey of 5,400 households in the United States was conducted in January, 1989. The sample included 1,080 households in each of five metropolitan areas: Los Angeles, San Francisco, Chicago, New York and Dallas. The combined population of these areas is about 19 million households, or 21% of the total number of American households in 1988.

The sample of consumers was selected from a consumer mail panel of 220,000 households maintained by Market Facts Inc., a market research company based in Chicago, Illinois. The metropolitan areas are defined to include the counties located in areas of dominant influence, or ADI's, measured by coverage of major television stations in each location. The sample was balanced statistically to reflect certain age ranges, household income levels and household sizes in each ADI.

SUMMARY RESULTS

The overall response rate in the survey was 75%. The key findings are summarized below:

(1) Survey results indicate that during the previous 12 months 90% of respondents consumed some kind of fresh/frozen fish and seafood while 10% did not. The seafood consumer group can be further broken down as follows:

- 43%, or 1,720 of the 4,041 respondents, currently consume fresh/frozen salmon ("salmon consumers");
- 47%, or 1,906 of the 4,041 respondents, currently consume fish and seafood but not salmon ("non-salmon seafood consumers").

(2) Salmon consumers tend to have higher incomes and eat more seafood than the rest of the population. The percentages of salmon consumers in Los Angeles and San Francisco are higher than the 43% overall average. The percentages of salmon consumers in New York, Dallas and Chicago are lower than the 43% average. A relatively constant percentage of 10% of adults in each city do not consume fresh/frozen seafood of any kind.

(3) There is a higher preference for fresh salmon than frozen salmon in both the retail and restaurant sectors. Year-round availability of fresh salmon would result in more increases in consumption in the retail sector than in the restaurant sector. Fresh salmon is normally purchased in some semi-processed form and not in a whole form.

(4) Salmon is perceived to be a high-priced product, both compared to general fish and seafood, and compared to meat, poultry and other protein sources. Price elasticities with salmon were determined to be higher than 1.0 (in other words, a 1% decline in price would result in a greater than 1% increase in quantity consumed) and were greater at the retail level than at the restaurant level.

(5) There would also appear to be a large group of non-salmon seafood consumers who would not consume salmon under conditions of either year-round availability, guaranteed quality or lower prices. The biggest differences in perception between salmon consumers and non-salmon consumers are with the attributes of flavour, ease of preparation and odour. Only about 40% of non-salmon seafood consumers (or 19% of the total population) would be induced to purchase salmon if prices were lower. Because factors other than price represent a barrier to salmon consumption for the other 60%, price declines of more than $1/lb. at the retail level and $2/meal at the restaurant level would not result in appreciably higher market penetration.

(6) An important reason why people eat seafood, and an attribute for which salmon scores highly, is health and nutrition. However, there also appears to be substantial concern in the U.S. about pollution and toxic waste dumping in ocean and lake waters. This concern inhibits fish consumption, including salmon.

(7) The majority of consumers do not perceive a difference between farmed and wild salmon.

(8) Canada ranks highest of all producing regions in terms of consumer identification with salmon.

DISCUSSION

Several implications for product development, distribution, pricing and promotion can be drawn from the study.

Greater market opportunities appear to exist with fresh salmon than with frozen salmon. Market opportunities exist in all geographic regions. The results suggest that an overall strategy which de-emphasizes pricing should be pursued. Rather, market promotion should emphasize salmon's nutritious value, mild flavour, ease of preparation and lack of odour, and also associate salmon with unpolluted Canadian waters.

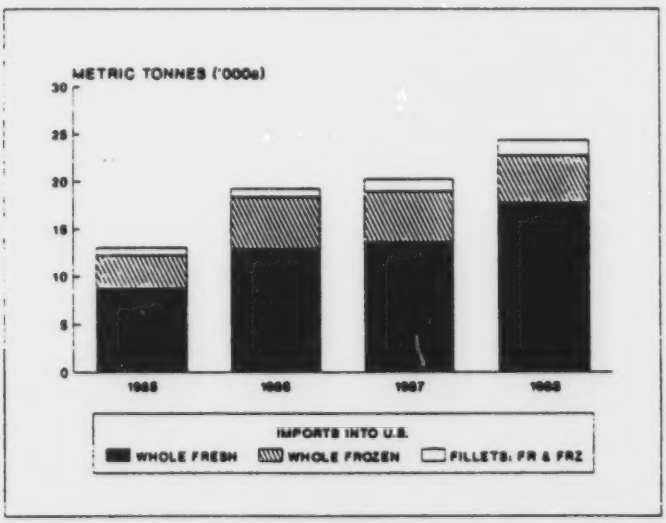
1.0 INTRODUCTION

1.1 Purpose of Study

Demand in the United States for fresh/frozen salmon has been increasing in recent years. The increase in demand has been met with salmon imports from Norway, Chile and Canada. The United States, a traditional market for wild Canadian fresh/frozen salmon, has become the target market for production of farmed chinook, coho and Atlantic salmon from British Columbia and Atlantic Canada.

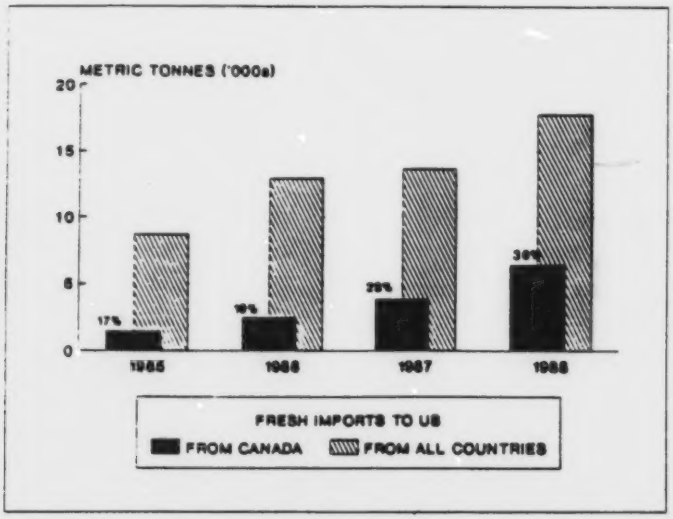
U.S. fresh/frozen salmon imports, shown in Exhibit 1.1, rose appreciably from 1985 to 1988, largely attributable to increases in imports of increased farmed production. Canada's share of total U.S. fresh/frozen salmon imports rose from 38% to 45%, while its share of total fresh salmon imports rose from 17% to 36% (Exhibit 1.2).

EXHIBIT 1.1: FRESH/FROZEN SALMON IMPORTS TO THE U.S. 1985-1988



Source: U.S. Dept. of Commerce

EXHIBIT 1.2: IMPORTS OF FRESH WHOLE SALMON TO THE U.S. 1985-1988



Source: U.S. Dept. of Commerce

Production and exports to the U.S. are expected to continue to increase. Production from British Columbia is forecast to reach 14,500 tonnes in 1989 and 20,000 tonnes in 1990. Production from Atlantic Canada is predicted to reach 4,500 tonnes in 1989 and 6,500 tonnes in 1990. In addition, as competition in more distant international markets intensifies, chinook and coho from the conventional fishery may increasingly be directed at the U.S. market.

Market research conducted to date suggests Canada should continue to develop the U.S. market. However, this research has been conducted only at restaurant and retail levels and has not been substantiated with consumer level research. Insufficient information about consumer demographics, purchase preferences, buying behaviour and the potential to increase salmon consumption has prevented the fishing and fish farming industries from developing marketing strategies to penetrate the U.S. market. These are particularly important in view of Canada's long-term production/supply potential.

In order to provide information essential to the development of such strategies a survey of salmon consumers in the U.S. was conducted. The specific objectives of the survey were to:

- identify market opportunities for fresh/frozen salmon;
- identify consumer needs;
- determine the implications of the collected information in relation to product development, pricing, promotion and distribution.

The study focussed on all fresh and frozen salmon, both wild and farmed, which includes all five species of Pacific salmon and Atlantic salmon. It is believed that at the consumer level there is not much difference in perception between farmed and wild salmon, or between species. Earlier studies have also suggested that there is higher consumption in the restaurant sector than in the retail sector and there is a preference for fresh over frozen (Anderson, 1986; DPA, 1987; Anderson, 1988); and demand for fresh/frozen salmon is price elastic (Anderson, 1988). As well, it is thought that consumption of salmon is higher on the West Coast because of greater product awareness.

1.2 Scope of Study

A mail survey of 5,400 households in the United States was conducted in January, 1989. The sample included 1,080 households in each of five metropolitan areas: Los Angeles, San Francisco, Chicago, New York and Dallas. These areas are within four of the nine census subdivisions in the U.S. The combined population of these areas is about 19 million households, or 21% of the total number of American households in 1988.

The sample of consumers was selected from a consumer mail panel maintained by Market Facts, Inc., a leading market research company based in Chicago, Illinois. The sample was one of households located in each metropolitan area described above. The metropolitan areas are defined in terms of the counties located in areas of dominant influence (ADI's) as measured by the strength of television signals of major stations in each location.

To select the sample, target quotas for household selection for each county were first determined. Target quotas reflect distributions of ADI households according to certain age ranges, household income levels and household sizes. ADI custom quota targets are described in more detail in Appendix A. Once the quotas were established, the target percentages were used to select respondents from each ADI area.

Both male and female panel members were selected for this sample. Questionnaires were mailed to the selected panel members. The person in the household who was 18 years of age or older and who had the most recent birthday was asked to answer the questionnaire.[1]

The overall response was 4,041 returns or 75% of the 5,400 questionnaires mailed (as shown in Exhibit 1.3). Approximately 800 responses were received from each of the five metropolitan areas. Probability samples of size 800 result in estimates that are within 3.5 percentage points of their true value, 19 times out of 20.

EXHIBIT 1.3: RESPONSE RATES - U.S. SALMON CONSUMER SURVEY

Sample ADI	Total Size	Returns	Percent Returns
New York, NY	1,080	792	73.3%
Dallas, TX	1,080	801	75.2%
Chicago, IL	1,080	836	77.4%
Los Angeles, CA	1,080	793	73.4%
San Francisco, CA	1,080	819	75.8%
	5,400	4,041	74.8%

Consumption patterns for all fish and seafood and fresh/frozen salmon are described in Section 2.0. Some comparisons are made to another major survey in the U.S. which was targeted at catfish consumption (Hatch, 1988). Differences between consumption patterns of salmon consumers and non-salmon seafood consumers and between ADI's are highlighted. Information collected also includes consumer demographics, product preference and likely consumer responses to promotion and to various pricing regimes (a copy of one version of the questionnaire is included in Appendix B).

The price sensitivity of the consumer demand for salmon is explored in Section 3.0. In Section 4.0 selected comments from respondents are listed. Summary findings and their implications for marketing strategies are discussed in Section 5.0.

2.0 CONSUMPTION PATTERNS

2.1 All Fish and Seafood Consumption

2.1.1 Respondent Demographics

Groups

The U.S. adult population can be segmented into two main groups based on current fish seafood consumption patterns. Survey results indicate that during the previous 12 months 90% of respondents consumed some kind of fresh/frozen fish and seafood while 10% did not.[2]

The seafood consumer group can be further broken down as follows:

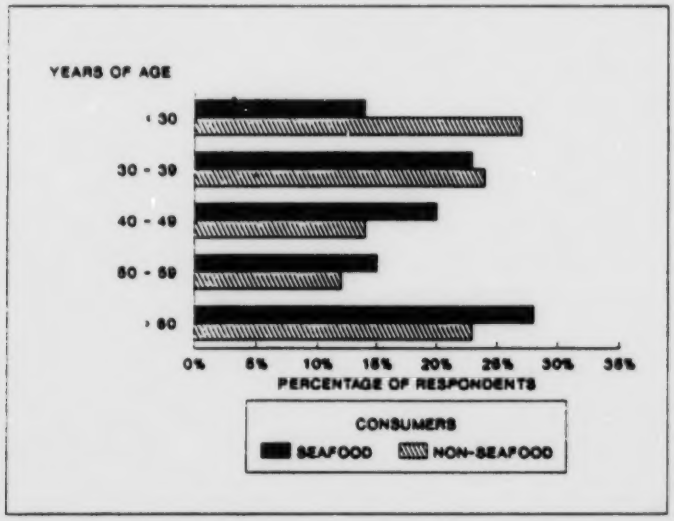
- 43%, or 1,720 of the 4,041 respondents, currently consume fresh/frozen salmon ("salmon consumers");
- 47%, or 1,906 of the 4,041 respondents, currently consume fish and seafood but not salmon ("non-salmon seafood consumers").

These sample sizes are sufficiently large to draw meaningful conclusions for the two major groups of salmon consumers and non-salmon seafood consumers. For example, a probability sample of size 1,720 results in estimates that are within 2.4 percentage points of their true value, 19 times out of 20.

Age

The distribution of respondents by age is shown in Exhibit 2.1. Sixty-two percent of respondents were over 40. In the sample, seafood consumers tended to be older than non-seafood consumers. Sixty-three percent of seafood consumers were over 40 compared to 45% for non-seafood consumers.

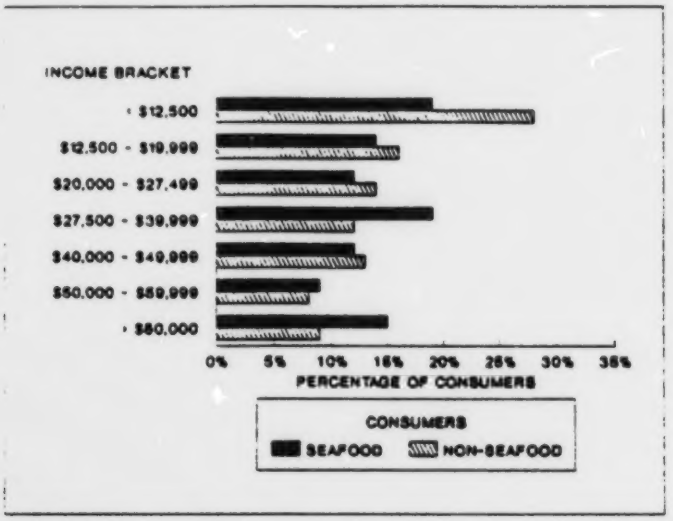
EXHIBIT 2.1: AGE DISTRIBUTION OF RESPONDENTS



Income

Seafood consumers tend to have higher incomes than non-seafood consumers. Household income of respondents is compared in Exhibit 2.2. About 51% of seafood consumers had household income in excess of $27,500, compared to 42% for non-seafood consumers.

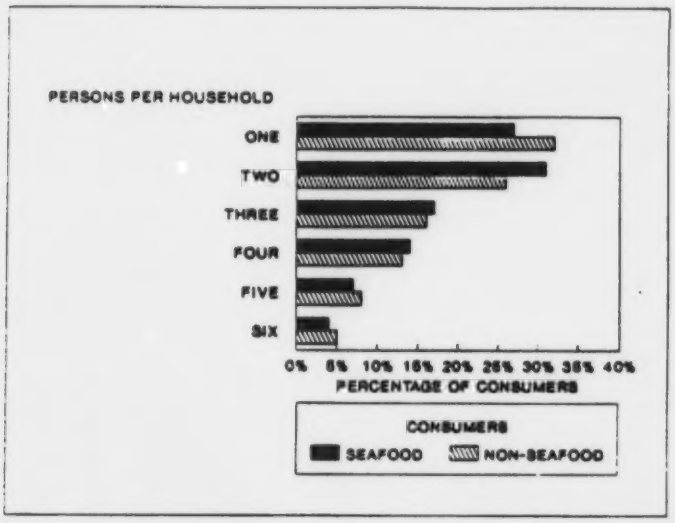
EXHIBIT 2.2: HOUSEHOLD INCOME OF RESPONDENTS



Persons per Household

The distribution of persons per household between seafood consumers and non-seafood consumers is similar, except that 5% more non-seafood consumers comprise one-person households than seafood consumers. The reverse is true for two-person households (Exhibit 2.3).

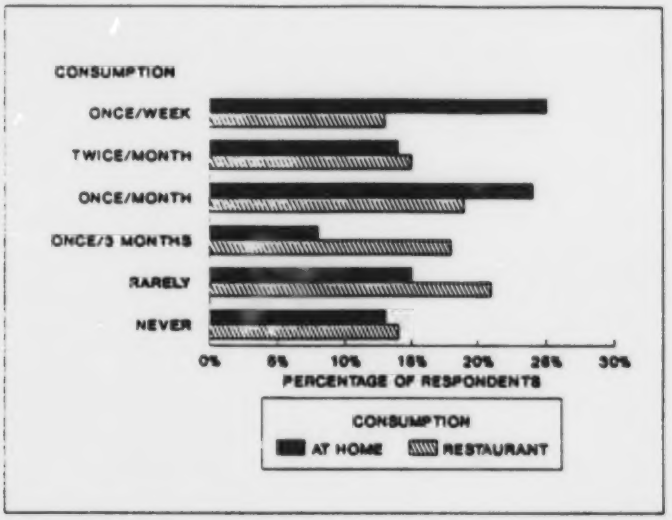
EXHIBIT 2.3: NO. OF PERSONS PER RESPONDENT HOUSEHOLD



2.1.2 General Seafood Consumption Patterns

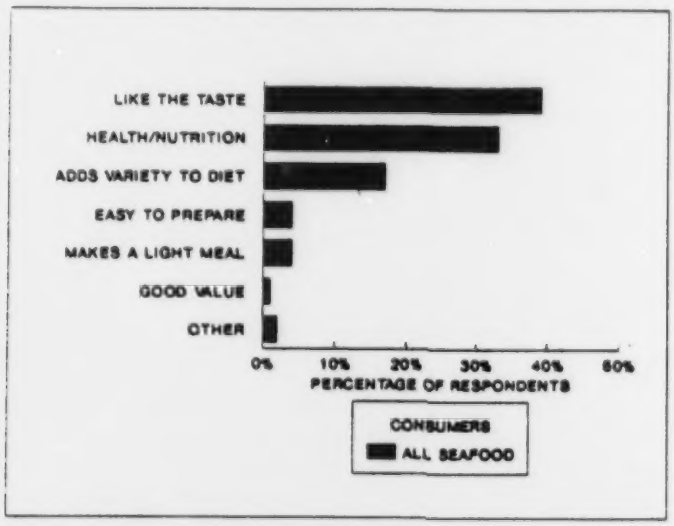
The frequency of seafood consumption is higher at home than in restaurants according to results summarized in Exhibit 2.4. About 63% of respondents consumed seafood at home at least once a month during the past year compared to 47% at restaurants.

EXHIBIT 2.4: FREQUENCY OF SEAFOOD CONSUMPTION



People eat fresh/frozen fish and seafood mostly because they like the taste and for health/nutrition reasons. Respondent replies are summarized in Exhibit 2.5. Most likely for the latter reason, the majority of respondents stated that they were eating more fresh/frozen seafood than they used to. Providing variety to diet is also an important reason for consuming fish and seafood.

EXHIBIT 2.5: PRIMARY REASON FOR EATING FISH AND SEAFOOD

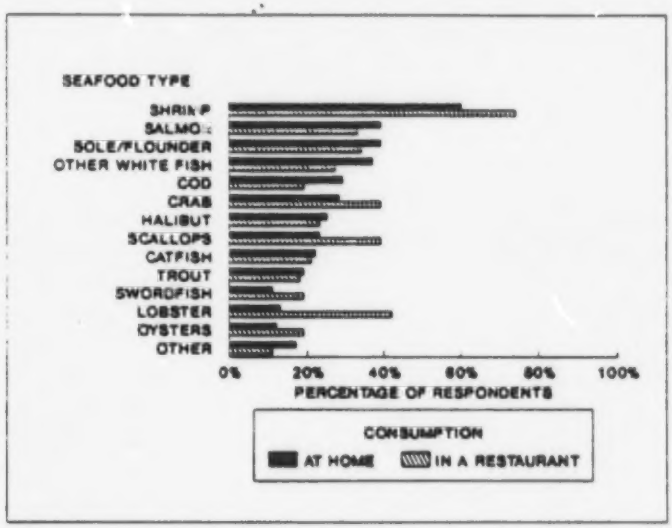


Nearly three quarters of the non-seafood consumers stated that they do not eat seafood because they do not like the taste. A further 10% claimed allergies prevented them from eating seafood.

Shrimp was the most frequently mentioned seafood being consumed in the past year, both at home and in restaurants (Exhibit 2.6). Salmon and sole/flounder ranked second for at home consumption. Lobster and scallops ranked second and third for restaurant consumption.

One surprising result was that respondents stated they ate salmon more often at home than in restaurants. Previous studies (DPA, 1987; Anderson, 1988) indicated that a greater proportion of fresh/frozen salmon is consumed in restaurants. This result may be influenced by respondents who included canned salmon and other product forms of salmon for at-home consumption despite the fact that these were to be excluded from the survey. The potential effect of this bias is that overall consumption rates for fresh/frozen salmon may be somewhat overstated.

EXHIBIT 2.6: PERCENTAGE OF RESPONDENTS CONSUMING SPECIFIC FRESH/FROZEN FISH AND SEAFOOD



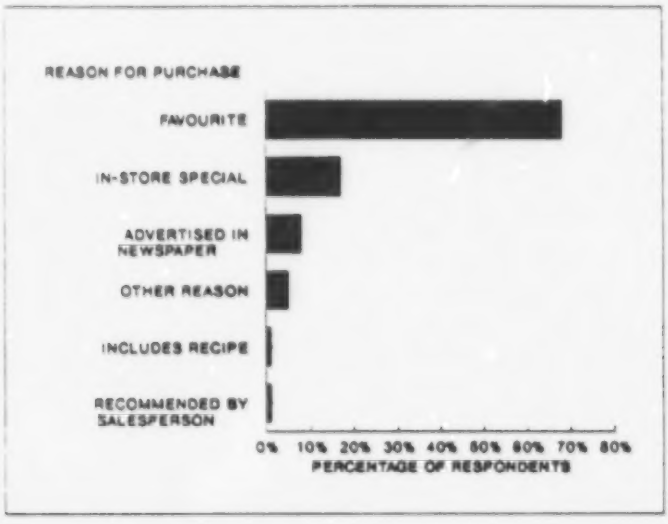
Shrimp and lobster were the most preferred by the seafood consumers in both the DPA and Hatch surveys (Exhibit 2.7). The most preferred finfish was catfish.

EXHIBIT 2.7: FAVOURITE FRESH/FROZEN FISH OR SEAFOOD

DPA Survey	Hatch Survey
1. Shrimp	1. Shrimp
2. Lobster	2. Lobster
3. Crab	3. Catfish
4. Catfish	4. Crab
5. Halibut	5. Flounder
6. Scallops	6. Cod

The most common reason given for purchasing a particular seafood in a retail store is that of a favourite (Exhibit 2.8). In-store specials are also an important selling feature. Advertisements in newspapers rank third.

EXHIBIT 2.8: USUAL REASONS FOR PURCHASING PARTICULAR SEAFOOD IN A RETAIL STORE



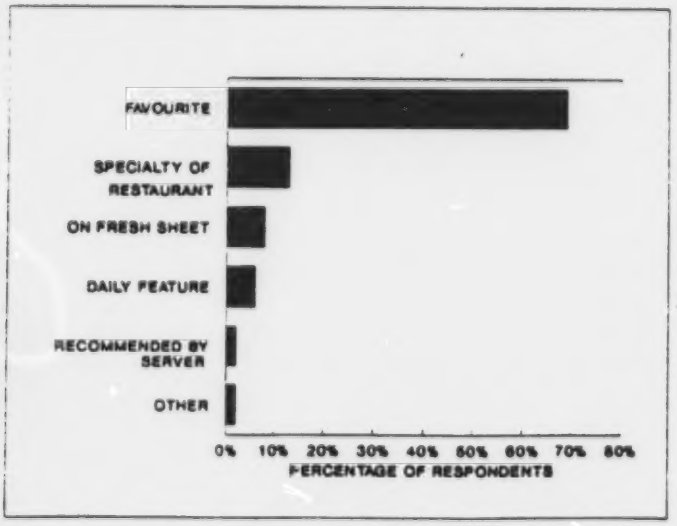
Most fish and seafood in all cities included in the survey are purchased either at supermarkets and/or fish markets. Fish markets in the New York area represent a much more important sales outlet for fish and seafood than the other four ADI's (Exhibit 2.9).

EXHIBIT 2.9: RETAIL OUTLET TYPE FOR FISH AND SEAFOOD PURCHASES, BY ADI

	NY	Dallas	Chicago	LA	SF
Supermarket	46%	76%	69%	74%	67%
Fish Market	39	7	13	11	21
Gourmet Store	-	1	1	1	-
Live Market	2	3	2	1	2
Takeout Restaurant	1	5	4	3	1
Varies	12	8	11	10	9
	100%	100%	100%	100%	100%

Like purchases at the retail level, the most common reason given for purchasing seafood in a restaurant is that it represents a favourite food (Exhibit 2.10). The second most common reason provided was that a particular seafood item was a specialty of the restaurant. The availability of fresh seafood also appears to be a selling feature in restaurants.

EXHIBIT 2.10: USUAL REASON FOR PURCHASING PARTICULAR SEAFOOD IN A RESTAURANT



Fish and seafood are most often consumed in specialty seafood restaurants in each ADI. Dallas in particular shows a high rate of consumption in this type of restaurant (which is offset by a low rate of consumption in other types of white table cloth restaurants). Chicago shows a lower rate of fish and seafood consumption in specialty seafood restaurants and a higher rate in family restaurants than other ADI's (Exhibit 2.11).

EXHIBIT 2.11: RESTAURANT TYPE FOR FISH AND SEAFOOD PURCHASED, BY ADI

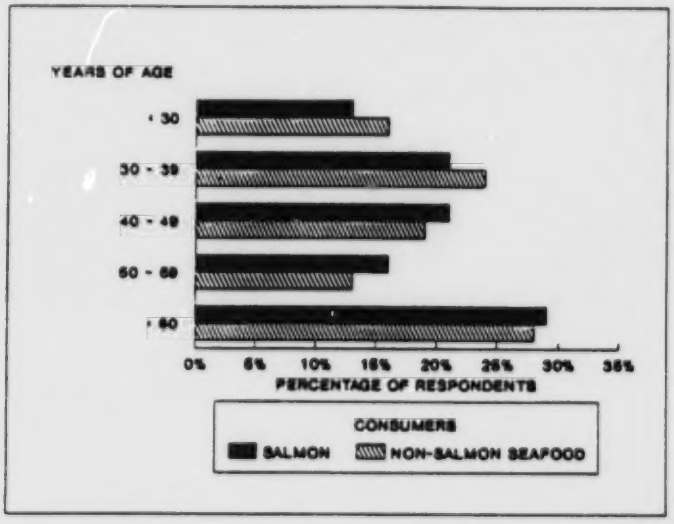
Type of Restaurant	NY	Dallas	Chicago	LA	SF
Specialty Seafood	41%	60%	30%	40%	42%
Other White Tablecloth	20	7	19	18	23
Family	30	22	41	33	25
Ethnic	6	2	4	5	7
Fast Food	3	9	6	4	3
	100%	100%	100%	100%	100%

2.2 Salmon Consumer Demographics

Age

The age distribution of salmon consumers is similar to non-salmon seafood consumers (Exhibit 2.12).

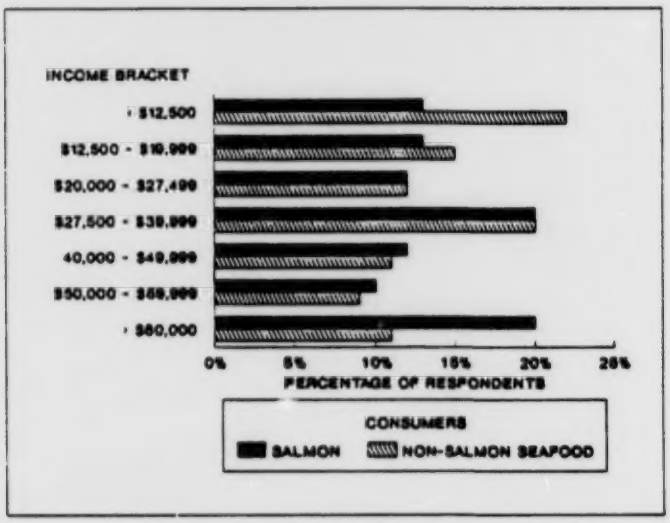
EXHIBIT 2.12: AGE DISTRIBUTION OF SALMON CONSUMERS



Income

Salmon consumers tend to have higher incomes than non-salmon seafood consumers. Household income of respondents is compared in Exhibit 2.13. The most significant differences are in the lowest and highest income categories. Twenty-two percent of non-salmon seafood consumers live in households with less than $12,500 in annual income compared to 14% for salmon consumers. In contrast, 20% of salmon consumers lived in households with income over $60,000, compared to 11% for non-salmon seafood consumers.

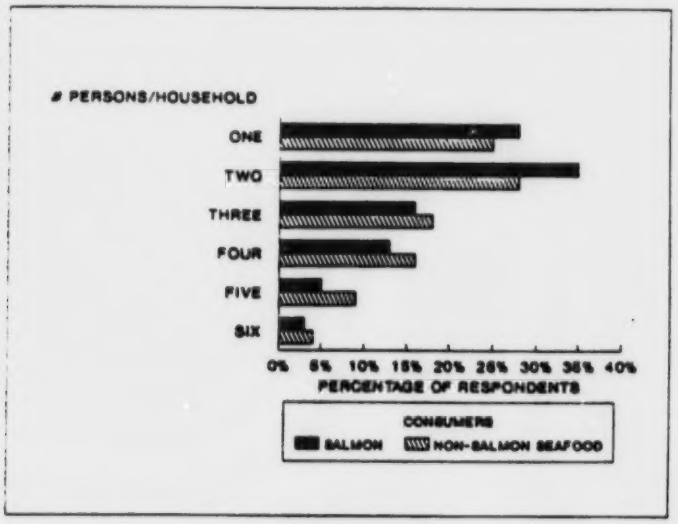
EXHIBIT 2.13: HOUSEHOLD INCOME OF SALMON CONSUMERS



Persons Per Household

The distribution of persons per household between salmon consumers and non-salmon seafood consumers is similar, except that more salmon consumers belong to single and two-person households (Exhibit 2.14).

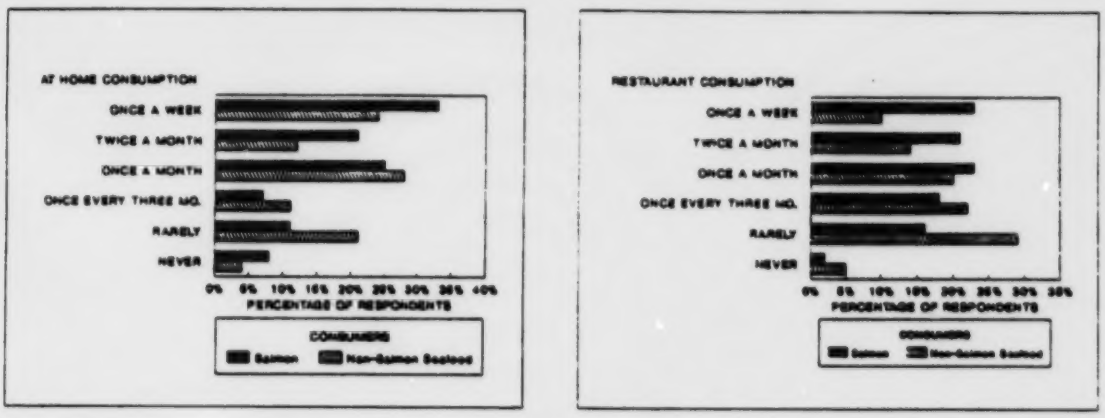
EXHIBIT 2.14: PERSONS PER HOUSEHOLD - SALMON CONSUMERS



2.3 Salmon Consumers' Purchase Patterns

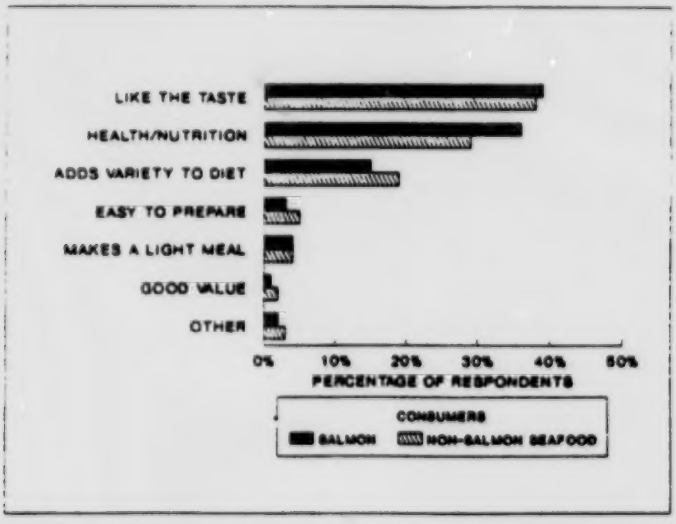
Eighty-seven percent of salmon consumers eat out in restaurants at least once a month, compared to 78% for seafood consumers. Salmon consumers eat seafood more often than do non-salmon seafood consumers. Seventy-nine percent of salmon consumers eat seafood at home at least once a month compared to 64% for seafood consumers (Exhibit 2.15). Sixty-three percent of salmon consumers eat seafood at least once a month in a restaurant compared to 44% for seafood consumers.

EXHIBIT 2.15: FREQUENCY OF SEAFOOD CONSUMPTION BY SALMON CONSUMERS



More salmon consumers eat fish and seafood for health/nutrition reasons than non-salmon seafood consumers (Exhibit 2.16).

EXHIBIT 2.16: PRIMARY REASON FOR EATING FISH AND SEAFOOD



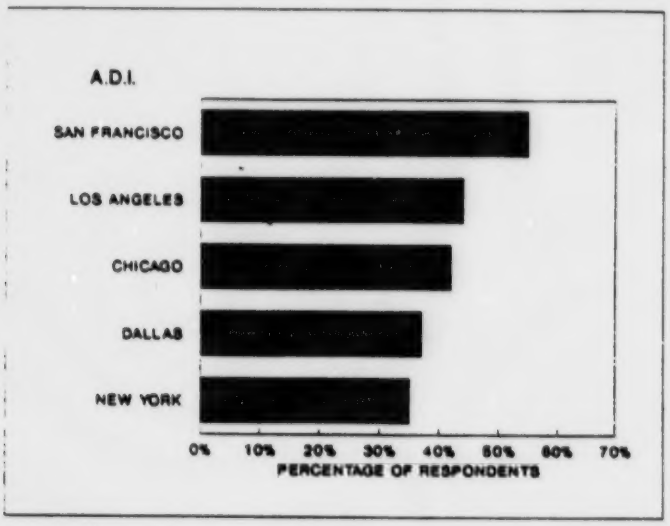
Salmon is the most preferred finfish of the salmon consumer group (Exhibit 2.17). Preferences for salmon rank third after shrimp and lobster. After catfish, the most preferred finfish by the non-salmon seafood consumer group was halibut.

EXHIBIT 2.17: FAVOURITE FRESH/FROZEN FISH OR SEAFOOD

Salmon Consumers	Non-Salmon Seafood Consumers
1. Shrimp	1. Shrimp
2. Lobster	2. Lobster
3. Salmon	3. Crab
4. Crab	4. Catfish
5. Catfish	5. Halibut
6. Scallops	6. Scallops

Salmon consumption is highest on the West Coast of the U.S. Salmon consumption by ADI is shown in Exhibit 2.18. San Francisco has the highest consumption rate, followed by Los Angeles and Chicago. Dallas has a slightly higher consumption rate than New York, which is somewhat surprising, since Dallas was not perceived to be a traditional market for fresh/frozen salmon.

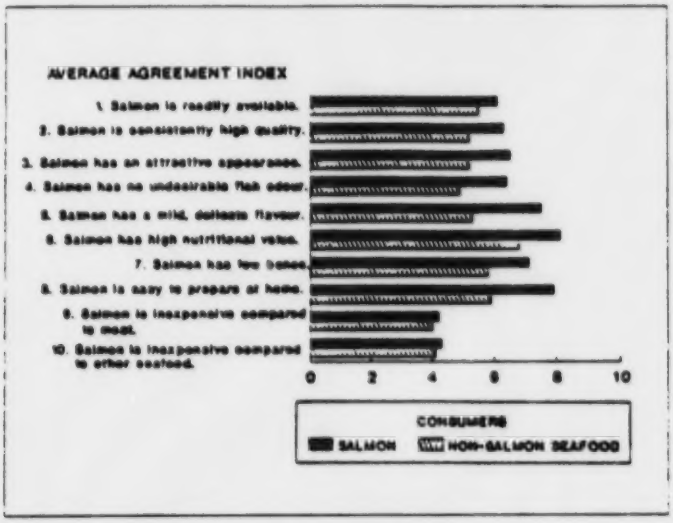
EXHIBIT 2.18: FRESH/FROZEN SALMON CONSUMPTION BY ADI



There are significant perceptual differences in relation to some attributes of fresh/frozen salmon between the salmon and the non-salmon seafood consumers. Respondents were asked to rate various attributes of fresh/frozen salmon. Summary rankings are shown in Exhibit 2.19.

Salmon consumers consider salmon to have high nutrition value, to be easy to prepare and to have a mild, delicate flavour. Significantly, the biggest differences in perception between salmon consumers and non-salmon seafood consumers are in relation to these three specific attributes.

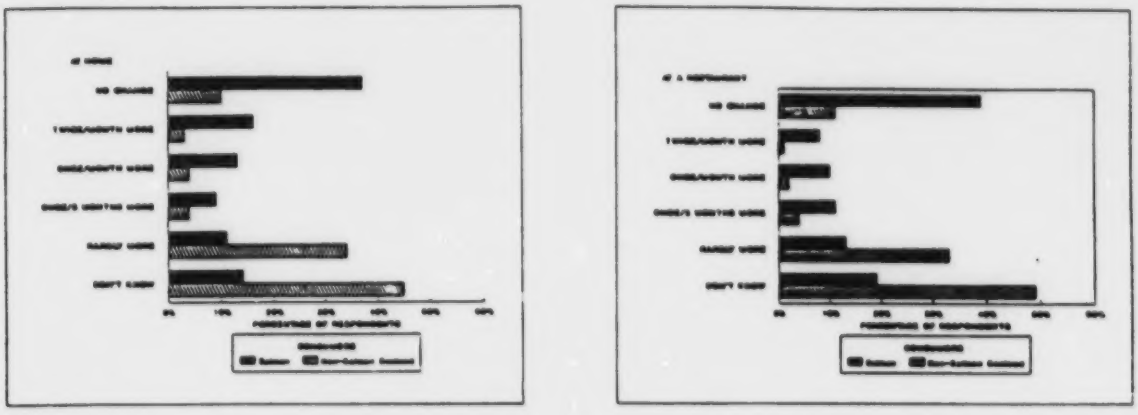
EXHIBIT 2.19: ATTRIBUTE RATING FOR FRESH/FROZEN SALMON*



*1 means strong disagreement and 10 means strong agreement

Significant proportions of salmon consumers would increase their current consumption of fresh salmon considerably if it were available on a year-round basis (Exhibit 2.20).

EXHIBIT 2.20: IF FRESH SALMON WERE AVAILABLE ON A YEAR-ROUND BASIS, HOW MUCH MORE FREQUENTLY WOULD YOU PURCHASE IT?



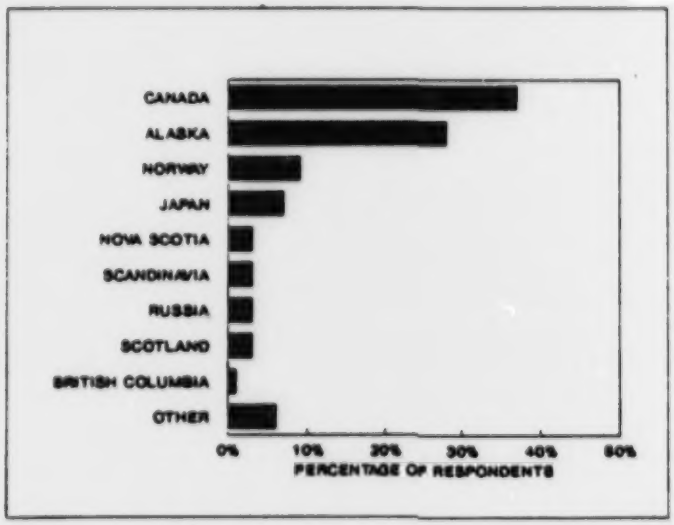
Salmon consumers are much more likely to increase frequency of purchase of fresh salmon with year-round availability than are non-salmon seafood consumers. Twenty-nine percent of salmon consumers stated they would increase purchases for at-home use at least once a month more with year-round availability compared to 7% of non-salmon seafood consumers. At-home frequency of purchase would increase more than restaurant frequency of purchase with year-round availability. Sixteen percent of salmon consumers stated they would increase consumption at home twice a month more, compared to 8% in restaurants. The potential additional consumption of salmon based on analysis of the increase in at-home meals suggests that fresh salmon consumption would increase 30-40% with year-round availability. (In the analysis, an average portion size was multiplied by the increased frequency of purchase.)

A guarantee of quality and freshness would also increase consumption more with salmon consumers than with seafood consumers. Thirty-two percent of salmon consumers said they would increase their consumption if salmon had a quality sticker, compared to 11% for non-salmon seafood consumers.

The awareness level of British Columbia and New Brunswick as supply regions for fresh salmon is currently very low, as shown in Exhibit 2.21. However, Canada as a whole ranked higher than any other region. Alaska ranked second in terms of awareness and Norway was a more distant third. Chile did not rank.

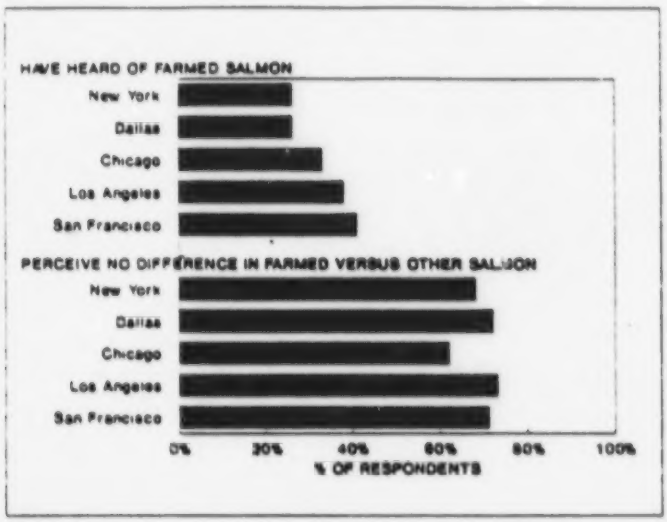
EXHIBIT 2.21: AWARENESS OF SUPPLY REGION

When you think of fresh salmon, what producing country or region outside of the (Lower 48) USA comes to mind?



The awareness of farmed salmon is also highest on the West Coast, as shown in Exhibit 2.22. Forty-one percent and 38% of respondents in San Francisco and Los Angeles, respectively, had heard of farmed salmon. Only 26% of respondents in New York and Dallas had heard of farmed salmon. However, more than two thirds of respondents did not perceive farmed salmon to be different from other salmon.

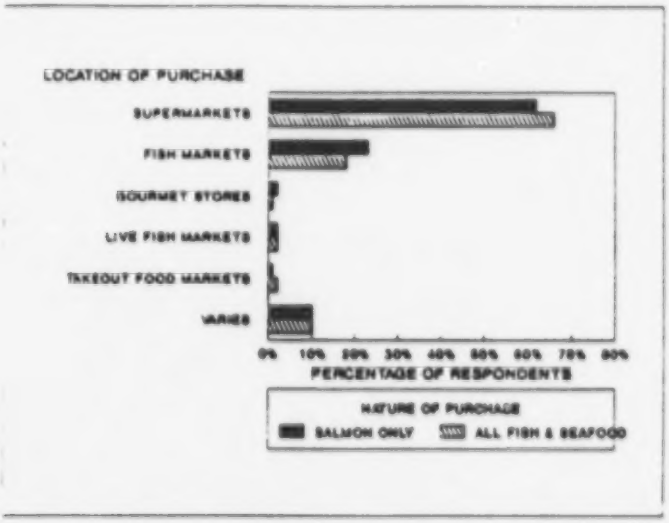
EXHIBIT 2.22: AWARENESS OF FARMED SALMON



2.3.1 At-Home Consumption

Eighty-five percent of fresh/frozen salmon is purchased in supermarkets and fish markets (Exhibit 2.23). A higher proportion of salmon is purchased in fish markets than is seafood in general.

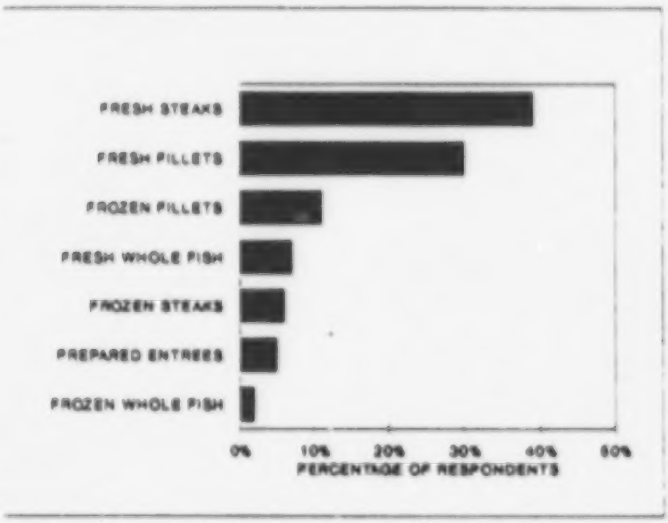
EXHIBIT 2.23: RETAIL OUTLET TYPE FOR PURCHASES OF FRESH/FROZEN SALMON



Fresh salmon appears to be in higher demand than frozen salmon at the retail level. Seventy-six percent of respondents stated that they generally purchase fresh product forms.

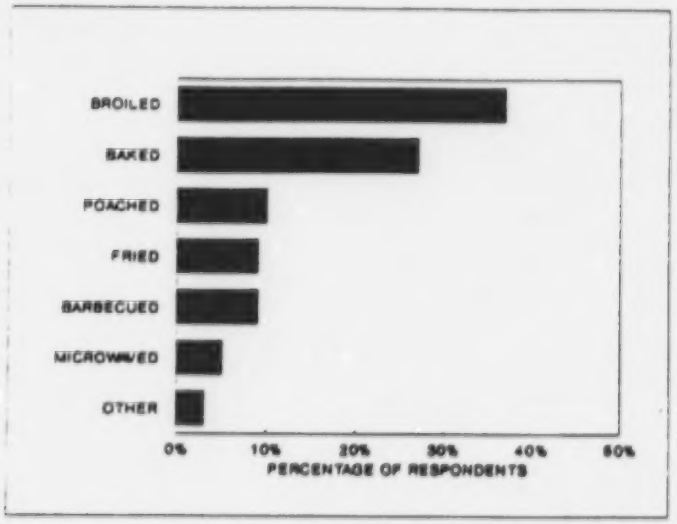
Salmon is not often purchased in whole form (Exhibit 2.24). For the most part, then, some form of value-added processing occurs before consumer purchases are made. Fresh steaks and fresh fillets are the product forms most often purchased in retail outlets.

EXHIBIT 2.24: PRODUCT FORM OF SALMON MOST OFTEN PURCHASED IN RETAIL OUTLETS



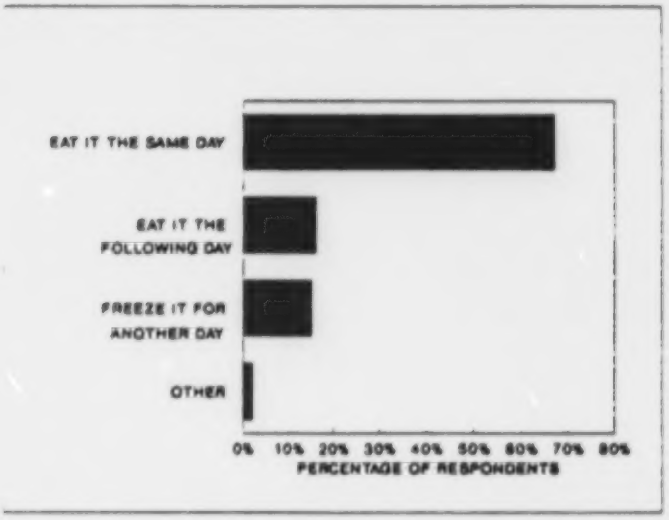
Fresh salmon is most often broiled or baked (Exhibit 2.25). Poaching, frying and barbecuing are also common ways to prepare salmon. Only 5% of fresh salmon is microwaved.

EXHIBIT 2.25: HOW DO YOU NORMALLY PREPARE FRESH SALMON?



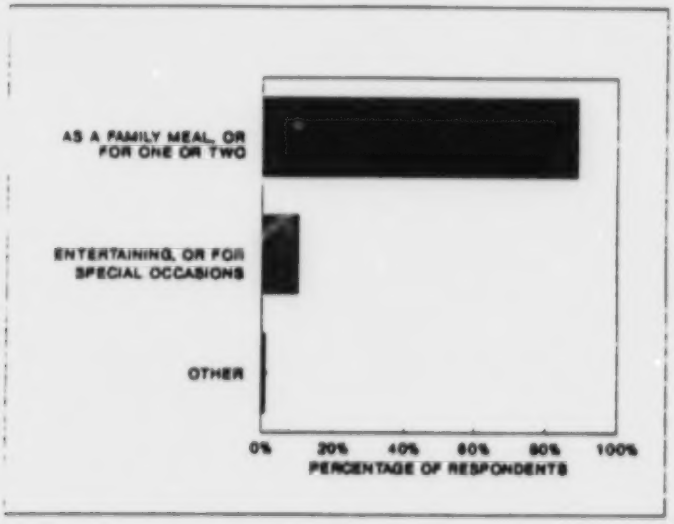
Fresh salmon is normally eaten the same day as it is purchased (Exhibit 2.26), possibly reinforcing the notion that freshness is an important attribute in the retail sector. Salmon may also be consumed quickly because it is perceived to have a short shelf life.

EXHIBIT 2.26: IF YOU BUY FRESH SALMON FROM A RETAIL OUTLET, DO YOU USUALLY:



Fresh salmon is not a seafood that is consumed only at special occasions. Fresh salmon is normally served as a family meal or for one or two (Exhibit 2.27) suggesting that for most current consumers, salmon is part of their regular diet.

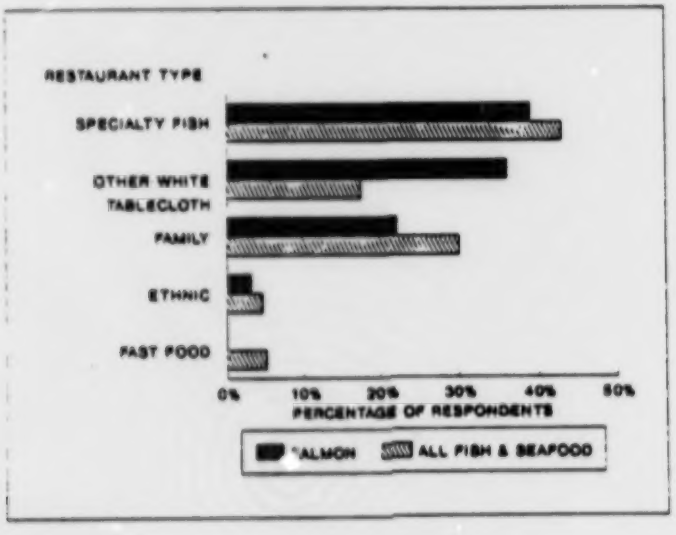
EXHIBIT 2:27: HOW DO YOU NORMALLY SERVE FRESH SALMON?



2.3.2 Restaurant Consumption

The majority of purchases of fresh/frozen salmon in restaurants are in specialty fish restaurants and white tablecloth restaurants. Seventy-five per cent of fresh/frozen salmon in these restaurants is consumed through the types shown in Exhibit 2.28. Expensive restaurants which do not specialize in seafood are an important outlet for fresh/frozen salmon. The consumption rate of salmon in this type of restaurant is twice as high as that of other fish and seafood.

EXHIBIT 2.28: RESTAURANT TYPE



3.0 PRICE SENSITIVITY

Price is an important attribute affecting the level of salmon consumption both in restaurants and at home. As such, pricing of salmon is strategic to all levels of the marketing chain -- consumers, restaurants/retailers, wholesalers and producers. This study focuses on consumer consumption levels, perceptions and responses to salmon. In this section we isolate and probe those aspects of the U.S. consumer survey relating to price sensitivity.

The group of salmon consumers would consume more salmon at lower prices, and would consume less salmon at higher prices. The group of other seafood consumers potentially could start to consume salmon at lower prices. Non-seafood consumers likely would not consume salmon at lower prices since presently they do not eat fish of any kind.

We address the price sensitivity of the first two groups.[3] All prices quoted are expressed in U.S. dollars. The analysis refers to all consumers covered in the survey.

3.1 Perceptions Regarding Current Salmon Prices

Salmon is perceived by consumers to be expensive compared to other fish and seafood substitutes, and compared to non-fish protein sources such as meat and poultry. The perception of relatively high cost occurs at the restaurant level and the retail level for home consumption, but is more pronounced at the retail level.

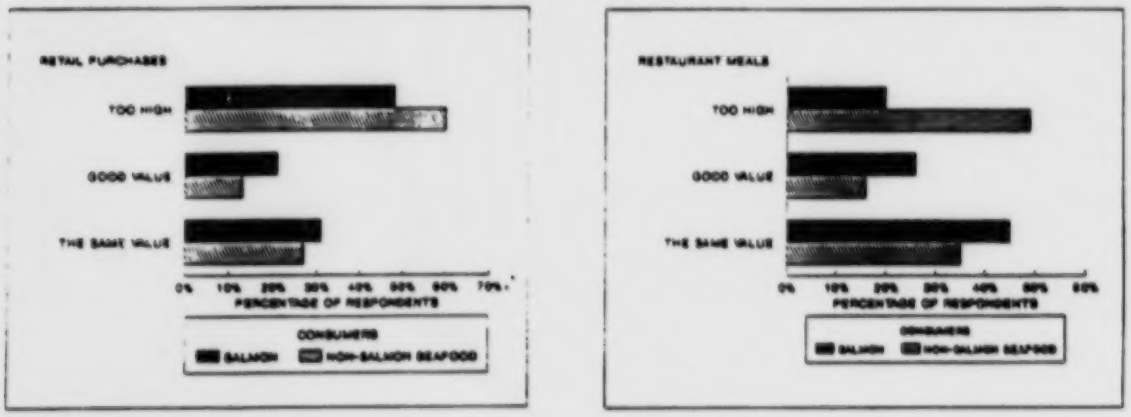
Two lines of questioning in the survey support these assertions. First, as noted earlier in Section 2.3, price was the only attribute for which salmon received an unfavorable score, i.e., a score less than 5 based on a scoring range of 1 to 10 (Exhibit 2.19).

Secondly, in the survey respondents were asked to assess the price of salmon at the restaurant and retail levels in relation to the prices of other meals and substitutes available (Exhibit 3.1). Four response categories were provided: too high/poor value, good value, about the same value, and no opinion.

At the restaurant level, 29% of salmon consumers thought the price of salmon was too high whereas a slightly lower 26% thought salmon meals were good value. Three times as many non-salmon seafood consumers, however, thought salmon was priced too high in restaurants as those who thought salmon was good value (49% versus 16%).

At the retail level, approximately half of salmon consumers and 60% of non-salmon seafood consumers thought that the price of salmon was too high compared to the price of meat, poultry and other substitutes. These percentages were more than two times and four times the shares of respondents who thought salmon was good value, respectively.

EXHIBIT 3.1: PERCEPTIONS REGARDING CURRENT SALMON PRICES



The results indicate that salmon is perceived to be relatively more expensive at the retail level than at the restaurant level. Anecdotal comments provided by respondents suggest that "people expect to pay a lot of money at a restaurant", but that people are more price conscious when they shop for home consumption.

A second important implication is that a much larger share of general seafood consumers -- those who consume fish and seafood but not salmon -- consider salmon to be expensive than do salmon consumers (Exhibit 3.1). This in turn implies that the high cost of salmon represents a barrier to consumption for many low income earners e.g. non-salmon consumers have a lower income profile.

The above analysis is based only on those survey respondents expressing an opinion about the price of salmon. An identical 55% of general seafood consumers at restaurants and 55% of general seafood consumers at retail outlets did not express an opinion about the prices of salmon. This may indicate that this subsegment does not assess the price of salmon in

making purchase decisions and, accordingly, excludes salmon from consideration when purchasing restaurant meals or protein for home consumption. The issue of what price levels, if any, "trigger" salmon consumption by present non-consumers of salmon is explored further in the next section.

3.2 Salmon Consumption at Different Prices

Economic theory suggests that individuals will consume more salmon at lower prices, everything else being equal. Conversely, if the price of salmon rises, salmon consumption will decline.

The analysis of survey responses indicated that price is indeed an important consideration of consumers in deciding whether or not to buy salmon. The important next step is to quantify, to the extent possible, the sensitivity of salmon consumption levels to prices -- How much salmon would be sold at different prices?

Current salmon consumers were asked whether they would still have purchased salmon if the price had been $x higher. Current salmon consumers and general seafood consumers were asked whether they would purchase salmon more often if the price was $x lower. That is, each respondent answered "Yes" or "No" (or "Don't know") to a question concerning salmon consumption behaviour at a specific alternate price level. Five versions of the questionnaire were printed with 20% of the questionnaires mailed to each city comprising each of the five versions.

A separate set of five "x" values, or price changes, were used for restaurant consumers and for retail consumers.

Questionnaire	Hypothetical Price Changes	
	Restaurant	Retail
Version 1	± $1.00/meal	± $0.50/lb
Version 2	± $2.00/meal	± $1.00/lb
Version 3	± $3.00/meal	± $1.50/lb
Version 4	± $5.00/meal	± $2.50/lb
Version 5	± $8.00/meal	± $4.00/lb

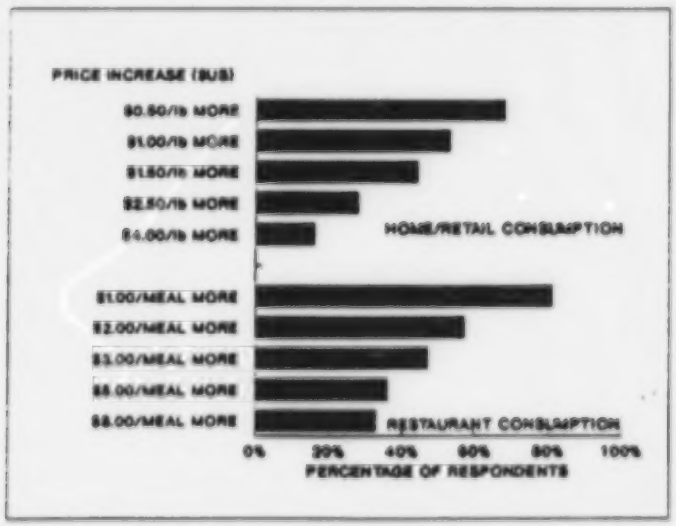
Note that at higher prices only existing salmon consumers can lower consumption; general seafood consumers already consume zero salmon. At lower prices, however, existing salmon consumers can buy salmon more often and general seafood consumers can start to purchase salmon. That is, lower salmon prices will elicit a response from two market segments.

Sensitivity to Price Increases. If the retail price of salmon increased $0.50 per pound, 68% of respondents indicated that they still would have made their last salmon purchase -- 32% would not have made the purchase (Exhibit 3.2). The share of consumers willing to pay increased prices steadily declines as the price level rises. At a $4.00 per pound higher price only 16% of retail consumers would maintain purchases.

A similar pattern emerges regarding restaurant consumption at higher prices. At $1.00 higher price, 81% of respondents indicated that they still would have bought the salmon meal -- 19% would not have bought the meal. At $8.00 higher price, one third of consumers still would have purchased the salmon meal.

The rate of decline in consumption at higher prices is lower for restaurant meals than for retail purchases. There appears to be an appreciable segment of the restaurant consumer market that is willing to pay substantially higher prices. The same is not true to the same degree for the retail market segment.

EXHIBIT 3.2: SHARE OF CURRENT SALMON CONSUMERS WILLING TO PAY INCREASED SALMON PRICES

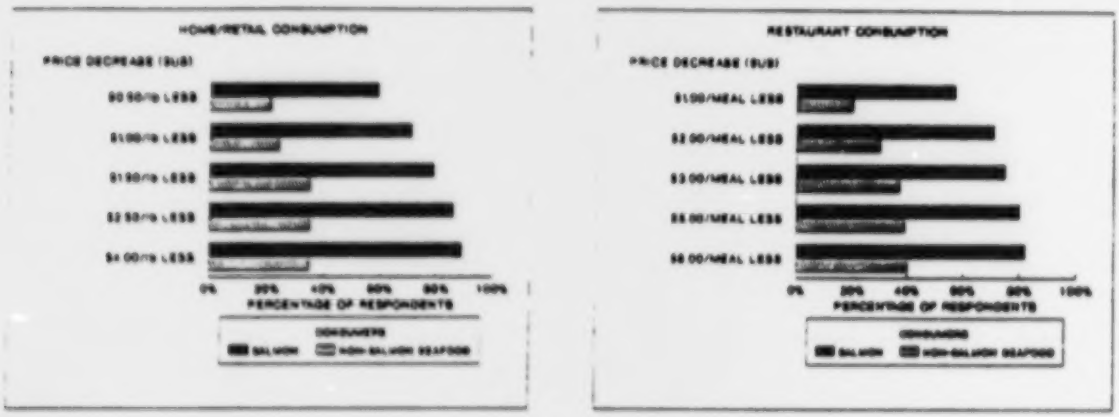


From the information in Exhibit 3.2 we can calculate a middle or median "willingness to pay" defined as the increased dollar amount at which 50% of consumers would still make salmon purchases. The median willingness to pay for
retail purchases is $1.15 per pound more; the median willingness to pay for restaurant meals is $2.70 per meal more.[4]

Sensitivity to Price Decreases. Exhibit 3.3 presents the responses of existing and potential salmon consumers to lower salmon prices. At $0.50 per pound lower retail prices, 59% of present salmon consumers would increase salmon consumption, and 21% of general seafood consumers would start to eat salmon. At $4.00 per pound lower price 89% of present salmon consumers will increase salmon consumption, whereas 35% of general seafood consumers will start to eat salmon. The response to lower prices for general seafood consumers is much less than for salmon consumers.

The shares of consumers willing to consume more salmon over the range of five lower restaurant prices were very similar to the pattern exhibited by retail purchasers over the range of five lower retail prices (Exhibit 3.3). Again the price sensitivity of general seafood consumers was much less than that of salmon consumers.

EXHIBIT 3.3: SHARE OF CURRENT SEAFOOD CONSUMERS WILLING TO PURCHASE MORE SALMON AT LOWER SALMON PRICES



An appreciable segment of non-salmon seafood consumers -- estimated at 60% to 65% from the survey -- will not consume salmon at any lower price. These people consume other fish and seafood but, based on present salmon product attributes and their awareness of salmon, they will not consume salmon even at very low prices. In order to induce these people to eat salmon, the salmon product and/or their perceptions concerning the product will have to change. In contrast, almost all people presently eating salmon would consume more salmon if the price were low enough.

The survey results indicate that there are two consumer segments -- those that are price sensitive, and those that are not price sensitive. Increasing consumption of salmon for this latter group will require specific product development and promotional initiatives.

The Price Elasticity of Demand for Salmon. The information in Exhibits 3.2 and 3.3 can be used to provide a rough estimate of the price elasticity of demand for salmon at the consumer level in the U.S. The price elasticity of demand is defined to be the percentage change in quantity demanded as a result of a one percent change in price.

To estimate this price elasticity we need the average price paid and the current consumption level for salmon. We use the following:

Sector	Consumption	1988 Composite Price
Retail	30,000 tonnes	$ 6.00 per pound
Restaurant	50,000 tonnes	$12.00 per meal

The consumption levels are estimates derived from a recent analysis of the U.S. salmon market.[5] The composite or average prices displayed above represent DPA Group estimates.

The estimated price elasticities of demand for salmon at the consumer level are:[6]

Retail	- 3.5
Restaurant	- 2.4

For example, a 10% increase in the price of salmon at retail outlets is projected to result in a 35% decrease in salmon retail sales.

Retail salmon sales are more price sensitive than restaurant salmon sales, a result consistent with consumer perceptions expressed in Exhibit 3.1. This result is also consistent with conclusions drawn in other studies (Sea Fare, 1988).

The above estimates of price elasticity in each major market segment are necessarily approximate. The estimates, nevertheless, do reinforce the conclusion, drawn directly from the survey results, that the demand for fresh/frozen salmon is price sensitive.

3.3 A Demand Curve for Salmon

The demand curve for salmon gives the amounts of salmon purchased at different market prices, other factors being the same (e.g. income and the prices of other commodities).

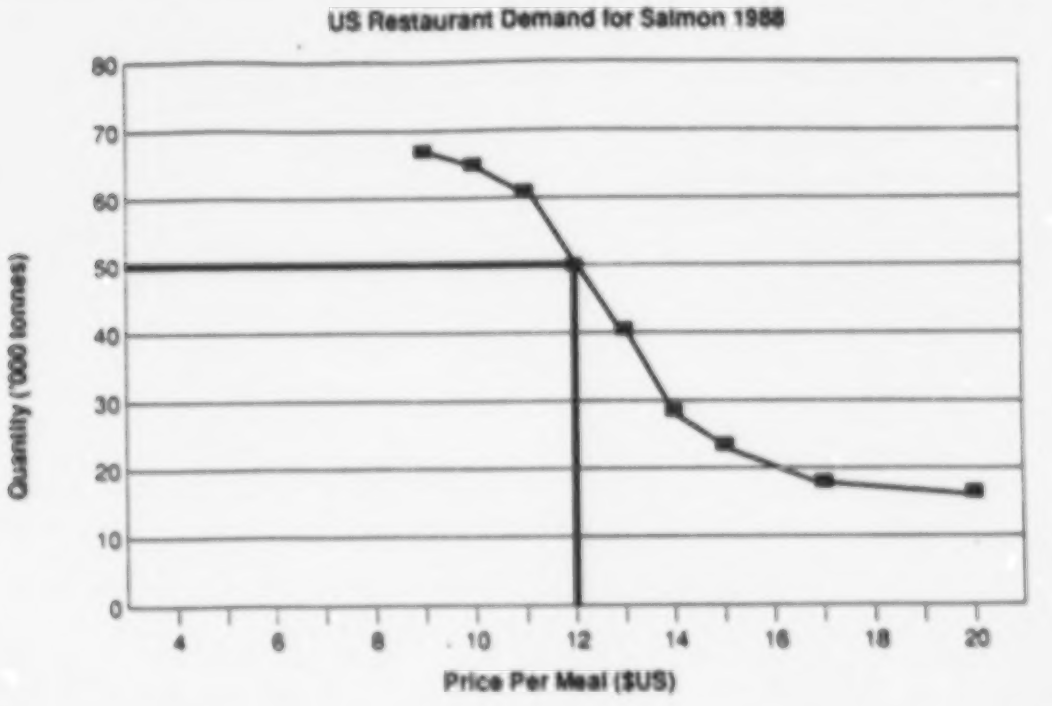
In Exhibit 3.4, we present approximate demand curves for the restaurant and retail sectors. In each case the solid lines isolate estimated 1988 quantity sold and average price (see Section 3.2 above). The lower part of the curve is derived by multiplying the proportions of consumers still willing to buy salmon at higher prices, from Exhibit 3.2, times the 1988 consumption level (e.g. at $13.00 per meal or $1 higher than the current price of $12 per meal, 81% of restaurant consumers would still buy the salmon meal. The demand level at a price of $13.00 then is 50,000 tonnes x .81 or 40,500 tonnes).

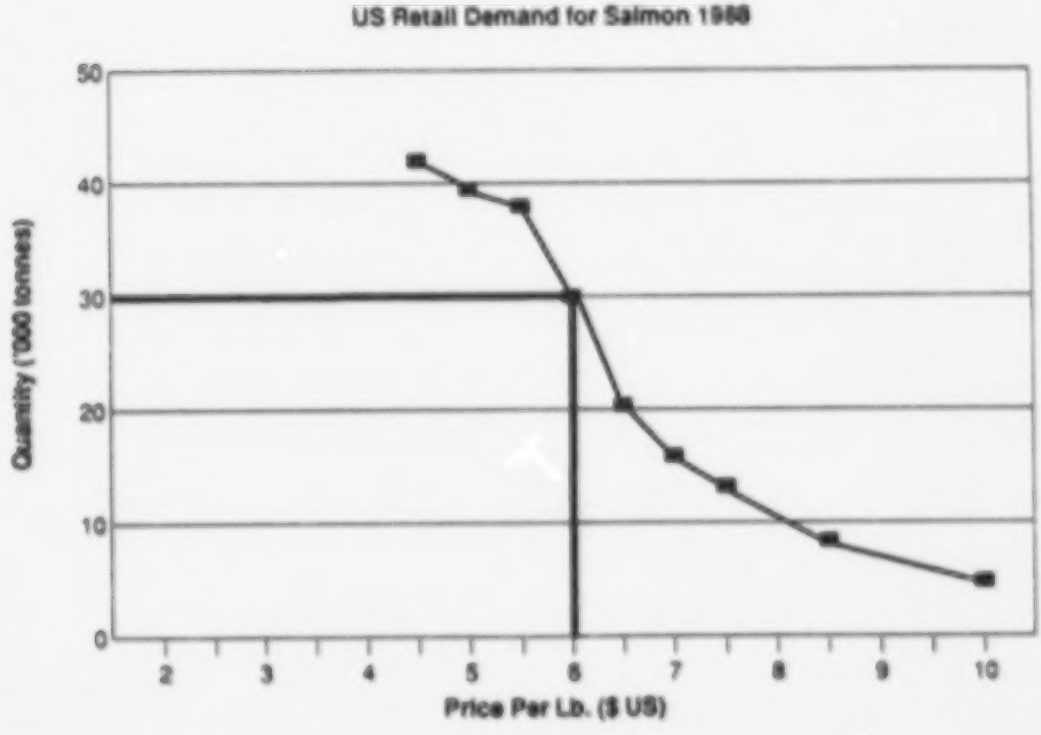
The survey asked individuals whether they would buy more salmon at lower prices, but did not ask what increased amount or frequency they would purchase. Accordingly, we can specify the proportion of people purchasing more salmon at lower prices, but we cannot specify the exact amounts. This limitation notwithstanding, we have traced out the upper part of the demand curve under specific assumptions as to increased per capita consumption.[7] We emphasize that the upper part of the demand curve is therefore illustrative.

The demand curves for both the restaurant and retail sectors are S-shaped (Exhibit 3.4). Demand or quantity sold is relatively more sensitive to small changes in price than to large changes in price. At high prices there is still a segment of the population willing to purchase salmon. There also is a segment of the population that would not purchase more salmon, or purchase salmon for the first time, no matter how low the price becomes.

The demand curves presented are based on <u>current</u> salmon attributes and consumer perceptions. The demand curve could be raised – i.e. more salmon could be sold at a given price than occurs presently – if attributes (e.g. quality, availability, etc.) could be improved or if consumer awareness and education of salmon (e.g. preparation methods) could be enhanced.[8]

Exhibit 3.4: US Consumer Demand Curves for Salmon





4.0 CONSUMER COMMENTS

In the survey respondents were given the opportunity to express general comments on fish and seafood consumption. We present a sampling under twelve general headings.

The majority of the comments reflect many of the findings of the study, especially those regarding perceptions towards attributes of fresh/frozen salmon. They also bring out several other findings, in particular those related to concerns about pollution.

Availability

1. We don't often get fresh salmon in this area. It is a wonderful fish and our family enjoys it poached, broiled or smoked .. [Dallas]
2. In this area fresh fish is not plentiful in the supermarkets. Salmon is not available [Dallas]
3. I like all seafood generally fresh. Salmon is good, but sometimes it is too expensive and also not available. [New York]
4. I am fond of salmon but have not seen it on menus where I eat, and have only recently seen it advertised in the markets. [San Francisco]
5. There is a need for more fresh/live fish markets. [San Francisco]

Quality and Freshness

6. I don't usually purchase fish if I know that it has been frozen. I can't be sure that it's high quality. [Los Angeles]
7. Having been raised on Pacific Ocean fresh fish leaves me with my mother's comment: "all company and fish held over 3 days smells" and if it smells it's not fresh and I won't buy it! [San Francisco]
8. Sometimes fresh and frozen fish is not fresh here in Texas. Would like more N. Atlantic or Pacific varieties over Gulf varieties. [Dallas]
9. Large variation in salmon i.e. coho, Copper River, King, etc. "Quality" of salmon varies much more than my favorite fish -- swordfish. [Los Angeles]
10. Salmon suffers by freezing. Shellfish does not. [San Francisco]
11. I always buy fresh salmon fillets and they vary in flavour, also in price. Sometimes they are good and sometimes they are not, and it's not the cost factor. [San Francisco]
12. Quality of the fish is most important (appearance, smell, texture). Freshness, age are prime considerations. [Dallas]

Appearance and Packaging

13. Occasionally the colour can be distasteful - the red, making it appear too old - perhaps dating the package when the fish was packaged would help. [San Francisco]

14. I like it when frozen salmon is individually wrapped in the package. It's much easier to take apart. [Dallas]

15. Cooking for retired couples is difficult because fresh meat/poultry/fish packaged portions are too large for single dinner. Fish especially is a problem. Left over fish is unappetizing! [Chicago]

16. We have an excellent grocery store here that cooks a different seafood each week and gives samples. I taste many different fish, and if I like them, I buy them and get the recipe. I probably would eat much less seafood if it weren't for this sales pitch. It's great! [Chicago]

17. Fish/seafood is better for you than red meat, but the price is too high. Salmon looks like tomatoes in winter too often. [San Francisco]

Fish Odour

18. I don't cook at home, but if I did, I wouldn't cook fish because of the odour. I enjoy eating seafood at restaurants occasionally. [San Francisco]

19. I don't eat salmon. As for seafood, I would have it more often but my husband can't stand the smell of fish in the house. So I usually have it in restaurants. [New York]

20. I dislike buying fresh fish, seafood for preparation at home because of the strong odour it leaves. [New York]

Taste and Flavour

21. I consider fresh fish to be tastier. I do not like frozen fish and always ask if the fish is fresh before I order it in a restaurant. [New York]

22. I have not developed a taste for salmon. I see it as very "fishy" tasting. [Dallas]

23. Wish you can rely on fresh/frozen seafood to be fresh & not have a fishy taste. [Chicago]

24. We consume a great deal of fish and seafood. Cost governs what I purchase. Salmon is my favorite fish. Even if very expensive, I will buy a piece for myself as a great treat. You have made me so hungry for salmon, I'm going to the store right now to buy some! [Los Angeles]

25. Salmon is the least tasteful of any fish. [San Francisco]

26. I like the variety and taste of most fresh/frozen fish and seafood. The value is usually good. I don't like the taste, smell or look of salmon in any form. [Dallas]

27. Salmon has always been my favorite, and I eat it every chance I get (Alaskan, Steelhead, etc.), but always fresh. Don't care for frozen fish at all. [Los Angeles]

Health and Nutrition

28. Eat fish, live longer. [Los Angeles]

29. Salmon is relatively high in fat & cholesterol for fin fish. [Los Angeles]

30. Salmon in this area usually has too much fat in it, and is flaccid. [San Francisco]

31. It is not as fattening as meat -- is good for your health. Salmon is low in fat. [Chicago]

32. I do like seafood and plan to eat it more frequently this year because my doctor says it is better for me. [Chicago]

33. I really do not care for salmon. I think its too oily. I almost always eat some sort of whitefish. [Chicago]

34. I enjoy fish at restaurants because it doesn't fill me up. Cooking fish at home generates too great an odour. [San Francisco]

35. I only use canned salmon. Fresh salmon is too rich for me. [Chicago]

36. Prefer seafood as an alternative to red meat, rather than poultry. We serve salmon steaks as a "special" meal because of price. Usually serve salmon grilled or broiled. [Dallas]

37. After eating fish or seafood I don't have that heavy feeling in my stomach like meat leaves you. [Chicago]

Bones

38. Salmon is my favorite "swimming fish", that is other than shellfish. I also hate the number of bones and use fillets only [San Francisco]

39. I would like the price of fillets to be the same as the price of steaks. We purchase salmon steaks but we prefer fillets (fewer bones!). [San Francisco]

Preparation

40. Restaurants do a better job at the preparation of seafood & salmon. [Chicago]

41. I do not have any recipe for preparing salmon. [Dallas]

42. I like eating seafood. I get tired of meats and fish is quick to fix. [New York]

43. Do not like <u>fried</u> seafood -- only expensive restaurants serve it poached or baked. Price of salmon compares to good steak, so it is reserved for special occasions. [New York]

44. I'm not real crazy about salmon. I haven't found many ways to prepare it. [Dallas]

45. I need to know more about cooking seafood and salmon. Wish some recipes were on the packages. [Dallas]

46. If fish and salmon weren't so expensive and I knew more ways to prepare them, I would serve the more often. [Dallas]

47. Easy to prepare and quick to cook. [Chicago]

Preparation (cont'd)

48. I love to eat fish. The main problem is high price and freshness. Don't really know how to prepare salmon, or if there is a special way to prepare it. [Chicago]

49. I eat a lot of seafood -- three or four times a week. Salmon's too hard to prepare/takes too long. [Chicago]

50. I eat seafood in restaurants mostly because I'm not experienced and confident cooking it at home. [New York]

51. I do not really do a good job of cooking fish or seafood. [Chicago]

52. Salmon is one of the few fish one can fix anyways – have for lunch or dinner and have an excellent meal. [Los Angeles]

Price

53. I'd like salmon more often, but it's too expensive. [Los Angeles]

54. Salmon is often $6.00 or above/lb in grocery stores -- too high, unless on sale. It's higher than most other fresh fish. Restaurant prices aren't usually very much higher than entrees. [Dallas]

55. Other fish is much cheaper. When feeding a family, it's very expensive to purchase salmon. [New York]

56. Since fish has been advertised as a low cholesterol food, it has become more and more expensive. [New York]

57. The prices on frozen fish are way too high for what you are getting in weight. But if it looks real good, I buy it anyway. [Los Angeles]

58. I find the price of fish extremely high. I would like to eat more fish, but being on fixed income, I cannot afford it. [Chicago]

59. Restaurant meals are on expense account. Cost is not a factor. [New York]

60. My family loves salmon but it's so expensive we seldom buy it. [San Francisco]

61. We generally eat fish about once or twice a week, but we buy salmon only if it is on sale. We like salmon but can't afford it very often. It is usually priced much higher than other fish. [San Francisco]

62. Fresh salmon is my favorite food, but I believe it is always over-priced. However, I purchase it. [Dallas]

63. Fish became more expensive when people realized it is better for you and less fattening. [Los Angeles]

64. Fish is our regular diet. Price is the most important factor when a particular fish is chosen. [Los Angeles]

65. The reason I do not purchase fresh/frozen fish often: (1) very expensive in California; (2) lack of knowledge in correct preparation. Most meals have not turned out as I would have liked. [Los Angeles]

Price (cont'd)

66. Love seafood. Tastes great, good for you. Too expensive but willing to pay price. Would eat a lot more if less expensive. [Chicago]

67. Don't eat more fish because children don't like it, and its too expensive. I've tried farm-grown baby whole salmon and loved it. My market has a fresh fish counter. [Los Angeles]

Quality Control

68. There recently was TV coverage concerning the lack of inspection of fish. I think this would influence consumption. [Los Angeles]

69. When you buy any fish, you never really know if they are fresh or not. There are no established guidelines. [San Francisco]

70. Because of the lack of a grading standard for fish, I am getting hesitant to purchase/consume any fish! [San Francisco]

Pollution and the Environment

71. I am acutely concerned about the fish being contaminated from the polluted waters of both oceans. If the dumping isn't stopped the fish -- if there are any left -- will be inedible. [New York]

72. My consumption of all seafood has been cut down over the past 10 years due to my concern of the toxic condition being found in the ocean. Price is also a big factor in buying it. [San Francisco]

73. I would love to eat more seafood/salmon if it were less expensive. I'm concerned with overfishing salmon and would be much more likely to purchase salmon if I knew it were from a farm. [San Francisco]

74. Latest special on TV concerning polluted waters poisoning fish has made me forget about eating fish -- at least for now. [Los Angeles]

75. Because of too much pollution in the waters, I am afraid to eat too much seafood for fear of getting sick. [Los Angeles]

76. My worry is that all seafood is contaminated to some degree. That keeps consumption limited to once a month. [Chicago]

77. I like to know what body of water the fish comes from. [Chicago]

78. I prefer farm-raised catfish which lacks lake and ocean poisons, so farm-raised salmon would be excellent.
[Chicago]

Other

79. We don't eat much fish unless my husband catches it and he won't let me buy any. [Los Angeles]

80. Eat only light/white fish -- allergic to dark fish (swordfish, salmon, etc.) and shellfish. [Los Angeles]

81. I do not like fish, but my wife does, so I have to eat it or go hungry. [New York]

Other (cont'd)

82. My husband usually eats salmon. I do not. [New York]

83. My husband doesn't like fish, so if I eat it, I eat it at a restaurant. [Chicago]

84. Usually go out and catch salmon for our home use. [San Francisco]

85. We usually serve seafood or salmon when Midwesterners are visiting. [San Francisco].

5.0 CONCLUSIONS

The analysis of the consumer market research information assembled under this study leads to several important conclusions with respect to fish and seafood and salmon consumer behaviour, attitudes and perceptions in the United States. These conclusions in turn have important implications for a focussed marketing strategy for Canadian salmon. The key findings are summarized below:

(1) Survey results indicate that during the previous 12 months 90% of respondents consumed some kind of fresh/frozen fish and seafood while 10% did not. The seafood consumer group can be further broken down as follows:

- 43%, or 1,720 of the 4,041 respondents, currently consume fresh/frozen salmon ("salmon consumers");
- 47%, or 1,906 of the 4,041 respondents, currently consume fish and seafood but not salmon ("non-salmon seafood consumers").

(2) Salmon consumers tend to have higher incomes and eat more seafood than the rest of the population. The percentages of salmon consumers in Los Angeles and San Francisco are higher than the 43% overall average. The percentages of salmon consumers in New York, Dallas and Chicago are lower than the 43% average. A relatively constant percentage of 10% of adults in each city do not consume fresh/frozen seafood of any kind.

(3) There is a higher demand for <u>fresh</u> salmon than frozen salmon in both the retail and restaurant sectors. Year-round availability of fresh salmon would result in a greater increase in consumption in the retail sector than in the restaurant sector. Fresh salmon is normally purchased in some semi-processed form and not in a whole form.

(4) Salmon is perceived to be a high-priced product, both compared to general fish and seafood, and compared to meat, poultry and other protein sources. Price elasticities with salmon were determined to be higher than 1.0 (in other words, a 1% decline in price would result in a greater than a 1% increase in quantity consumed) and were greater at the retail level than at the restaurant level.

(5) There would also appear to be a large group of non-salmon seafood consumers who would not consume salmon under conditions of either year-round availability, guaranteed quality or lower prices. The biggest differences in perception between salmon consumers and non-

salmon consumers are with the attributes of flavour, ease of preparation and odour. Only about 40% of non-salmon seafood consumers (or 19% of the total population) would be induced to purchase salmon if prices were lower. Because factors other than price represent a barrier to salmon consumption for the other 60%, price declines of more than $1/lb. at the retail level and $2/meal at the restaurant level would not result in appreciably higher market penetration.

(6) An important reason why people eat seafood, and an attribute for which salmon scores highly, is health and nutrition. However, there also appears to be substantial concern in the U.S. about pollution and toxic waste dumping in ocean and lake waters. This concern inhibits fish consumption, including salmon.

(7) The majority of consumers do not perceive a difference between farmed and wild salmon.

(8) Canada ranks highest of all non-U.S. producing regions in terms of consumer identification with salmon.

There are several limitations to the study findings. Overall consumption rates for fresh/frozen salmon may be overstated, in particular at-home consumption rates. The impact on the study of a greater proportion of women responding to the survey than that which exists in the population at large is not known. Also, the relationships drawn between quantity demanded and prices require further refinement.

A similar survey in major centres in Canada would likely benefit the Canadian salmon industry. Other areas for further research could include analysis of income elasticities and consumption patterns by income group and occupation. As well it is thought that a survey addressing cultured mussel and oyster purchase patterns would benefit the aquaculture industry.

Several implications for product development, distribution, pricing and promotion can be drawn from the findings of the study. In addition, it is suggested that responses to market promotion campaigns be measured as part of a marketing strategy.

Product Development

Greater market opportunities appear to exist with fresh salmon than with frozen salmon. A product strategy which strives for year-round availability of fresh salmon should be pursued. Initially, marketing campaigns may be required to take into account production cycles with fresh salmon.

Distribution

Market opportunities exist in all geographic regions. Marketing campaigns must take into account the role of the fresh fish wholesale and distribution system in the U.S. which processes fish into fresh forms.

Pricing

A marketing strategy which de-emphasizes pricing should be pursued since only a certain level of market penetration can be achieved from lowering prices. Greater market penetration can be achieved in the retail sector than the restaurant sector from a lowering of prices. This suggests that price discounting should be used to encourage consumption only in the retail sector.

Pricing strategies need to take into account costs of production and distribution costs. Competitive strategies by other supply regions also require assessment and monitoring.

Promotion

Market promotion should emphasize salmon's nutritious value, mild flavour, ease of preparation and lack of odour.

Market promotion should also associate salmon with unpolluted Canadian waters.

FOOTNOTES

1. The survey respondents closely matched the ADI targets for age, income and household size. The proportion of respondents who were female is not representative, however. About 72% of respondents were female, which is higher than the population at large. The higher proportion of females who participated in the survey reflects the fact that the Market Facts panel has a higher proportion of females. About 84% of respondents were panel members. Many panel members therefore filled out questionnaires even though they were not likely the person in the household who had the most recent birthday. The impact of the disproportionately high response rate with females is not known.

2. In a similar survey conducted in 1988 targetted at catfish consumption, it was found that 87% of respondents surveyed from nine U.S. census subdivisions consumed seafood.

3. The consumer survey did not address price sensitivity for individuals who presently do not consume fresh/frozen fish and seafood of any kind.

4. The amount consumers are willing to pay over and above the amount they actually do pay is termed "consumer surplus". Accordingly, the median consumer surplus for salmon retail purchases and salmon restaurant meals are $1.15 per pound and $2.70 per meal respectively.

5. The Sea Fare Group and J.L. Anderson estimated 1987 total US salmon consumption to be 68,800 metric tonnes (43,100 tonnes in restaurants and 25,700 tonnes in retail stores). These figures were adjusted upwards by 15% to reflect 1988 consumption levels and adjusted for any under reporting.

6. The elasticities are arc elasticities reflecting the percentage change in demand arising from a 10% increase in price, and are calculated from data in Exhibit 4.2.

7. We assumed that:

   (a) present salmon consumers willing to increase consumption at the lower price would increase consumption by 25%;

   (b) general seafood consumers willing to start purchasing salmon at the lower price would consume 1/2 pound; and

   (c) there were 140 million adult Americans living in metropolitan areas in 1988 (there were an estimated 246 million people living in the U.S. in 1988, 74% of whom were 18 years or older and 77% who were living in metropolitan areas -- U.S. Department of Commerce, Statistical Abstract of the United States, 1988, Table 13).

8. The Sea Fare Group and S. L. Anderson study estimated wholesale market response to improved salmon product attributes.

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APPENDIX A
ADI CUSTOM QUOTA TARGETS

A.D.I. CUSTOM QUOTA TARGETS

A.D.I.		AGE OF HOUSEHOLDER							NUMBER OF PERSONS					
LOS ANGELES	TOTAL	UNDER 25	25-34	35-44	45-54	55-64	65+		1	2	3	4	5	6
CA: IMPERIAL	7,700	397	1,459	1,414	1,151	1,285	1,994	OK	2,301	2,795	1,078	936	400	192
KERN (EP)	176,000	14,743	42,867	35,206	25,374	25,401	33,149	OK	39,604	55,282	31,401	28,493	12,996	8,224
LOS ANGELES	3,046,000	208,184	751,886	652,532	468,988	439,508	524,982	OK	878,610	903,900	503,352	405,355	199,422	155,361
ORANGE	773,800	54,144	192,526	183,508	127,242	103,513	110,867	OK	182,956	245,811	139,858	120,298	53,632	31,245
RIVERSIDE (NP)	324,100	20,698	67,358	59,399	43,873	49,355	84,217	OK	74,827	118,716	51,132	44,363	20,956	14,106
SAN BERNARDINO	400,300	31,186	101,164	82,641	57,020	54,572	73,717	OK	85,659	127,942	73,388	65,667	30,510	17,134
VENTURA	204,700	12,848	58,877	50,209	32,727	26,980	31,059	OK	37,116	62,682	38,354	37,384	17,486	11,678
LOS ANGELES ADI TOTAL	4,932,600	344,120	1,207,337	1,064,909	755,575	700,614	859,985	OK	1,301,073	1,517,126	838,563	702,496	335,402	237,940
	100.0%	7.0%	24.5%	21.6%	15.3%	14.2%	17.4%	100.0%	26.38%	30.76%	17.00%	14.24%	6.80%	4.82%
SAN FRANCISCO														
CA: ALAMEDA	477,200	34,785	126,491	103,198	68,189	66,046	80,491	OK	147,703	147,777	79,493	60,934	28,590	14,641
CONTRA COSTA	275,800	15,616	64,052	66,579	44,463	41,336	43,754	OK	68,149	88,677	50,643	43,225	17,689	7,417
LAKE	21,600	817	3,260	2,908	2,358	4,496	7,561	OK	5,540	9,596	2,911	2,192	895	466
MARIN	94,200	4,060	22,848	24,890	15,141	13,289	14,032	OK	29,984	31,509	15,255	11,689	4,269	1,514
MENDOCINO	29,300	1,796	7,434	6,137	3,775	4,233	5,925	OK	7,269	10,227	5,066	4,167	1,696	875
NAPA	48,900	2,310	8,447	8,145	5,642	6,374	9,982	OK	11,034	14,381	6,539	5,568	2,320	1,058
SAN FRANCISCO	331,900	17,742	86,330	62,698	43,568	45,725	76,839	OK	143,052	99,471	41,082	25,508	12,624	10,163
SAN MATEO	242,000	12,770	56,237	53,892	39,389	38,736	40,976	OK	68,809	79,190	40,865	31,890	13,706	7,540
SANTA CLARA	493,700	37,809	152,303	121,386	78,427	62,663	61,912	OK	121,608	150,121	90,209	78,147	34,418	19,197
SOLANO (NP)	97,200	8,016	27,385	21,839	14,012	12,189	13,759	OK	21,868	29,385	18,699	16,667	7,151	3,430
SONOMA	137,700	8,271	34,130	28,690	16,776	18,572	31,261	OK	37,490	47,437	22,695	19,002	7,634	3,522
SAN FRANCISCO ADI TOTAL	2,241,500	143,132	566,917	500,162	331,940	313,657	385,692	OK	662,468	707,771	373,457	298,989	128,992	69,823
	100.00%	6.39%	25.29%	22.31%	14.81%	13.99%	17.21%	100.00%	29.55%	31.58%	16.66%	13.34%	5.75%	3.12%

Source: Sales and Marketing Management Magazine,"Survey of Buying Power Data Service 1987"(New York,NY, Sales and Marketing Management Magazine, 1987)

A.D.I. CUSTOM QUOTA TARGETS

	---- A.D.I. ----	INCOME								
	LOS ANGELES	UNDER $5000	$5000 - $9999	$10000 - $14999	$15000 - $19999	$20000 - $24999	$25000 - $34999	$35000 - $49999	$50000 OR MORE	
OK	CA: IRVD	554	1,157	1,061	892	776	1,273	1,190	799	OK
OK	EERR (EP)	10,043	19,259	20,053	19,127	16,950	28,419	30,350	31,799	OK
OK	LOS ANGELES	204,907	309,338	320,915	313,642	279,571	469,780	496,833	651,014	OK
OK	ORANGE	28,306	45,794	58,016	65,546	64,605	122,485	154,604	234,534	OK
OK	RIVERSIDE (VP)	19,826	37,395	42,346	38,681	32,619	52,947	51,384	48,982	OK
OK	SAN BERNARDINO	23,361	42,461	45,059	41,192	37,557	68,532	74,226	68,212	OK
OK	VENTURA	7,243	12,055	15,695	17,675	17,235	30,868	41,693	62,216	OK
OK	LOS ANGELES ADI TOTAL	295,940	467,369	503,145	496,755	449,311	774,326	850,280	1,097,476	OK
100.00%	%	5.96%	9.48%	10.20%	10.06%	9.11%	15.70%	17.24%	22.25%	99.99%

	SAN FRANCISCO									
OK	CA: ALAMEDA	29,814	47,688	44,308	43,037	39,871	72,111	87,816	112,555	OK
OK	CONTRA COSTA	10,662	18,516	19,159	20,114	19,888	38,483	52,874	96,104	OK
OK	LAKE	1,792	4,301	4,013	2,900	1,893	2,774	2,270	1,457	OK
OK	MARIN	3,414	4,598	5,753	6,798	6,846	12,420	16,327	38,044	OK
OK	MENDOCINO	2,085	3,889	3,859	3,385	3,187	5,277	4,412	3,286	OK
OK	NAPA	1,817	3,286	3,679	3,846	3,502	6,154	7,724	10,892	OK
OK	SAN FRANCISCO	23,119	35,750	33,166	34,080	31,301	49,921	51,421	73,142	OK
OK	SAN MATEO	8,794	12,874	16,592	20,505	20,097	37,328	49,167	76,643	OK
OK	SANTA CLARA	16,768	27,855	32,551	37,614	38,667	74,441	101,665	164,137	OK
OK	SOLANO (VP)	5,305	8,639	10,232	10,144	9,108	17,647	20,341	15,784	OK
OK	SONOMA	7,470	12,474	13,806	13,929	12,773	21,927	25,978	29,343	OK
OK	SAN FRANCISCO ADI TOTAL	111,040	179,870	187,118	196,354	187,053	338,483	419,995	621,587	OK
100.00%	%	4.95%	8.01%	8.35%	8.76%	8.34%	15.10%	18.74%	27.73%	100.01%

Source: Sales and Marketing Management Magazine, "Survey of Buying Power Data Service 1987" (New York, NY, Sales and Marketing Management Magazine, 1987)

A.D.I. CUSTOM QUOTA TARGETS

A.D.I.	CHICAGO	AGE OF HOUSEHOLDER								NUMBER OF PERSONS					
		TOTAL	UNDER 25	25-34	35-44	45-54	55-64	65+		1	2	3	4	5	6
IL1:	COOK	1,956,060	110,659	442,490	391,948	306,582	309,802	374,519	OK	953,777	549,516	323,756	263,795	148,724	184,434
	DE KALB	25,480	3,618	6,164	4,621	3,270	3,250	4,477	OK	7,343	7,853	4,449	3,487	1,602	666
	DU PAGE	264,380	15,359	72,967	67,991	43,248	34,703	30,092	OK	62,902	75,160	49,220	45,640	21,973	9,485
	GRUNDY	12,280	829	2,797	2,490	1,763	1,753	2,518	OK	2,895	3,658	2,236	2,014	996	481
	KENDALL	12,480	745	2,247	2,272	1,730	1,961	3,445	OK	3,288	3,984	2,056	1,863	829	380
	KANE	109,180	8,882	28,601	24,026	16,029	14,157	18,285	OK	25,288	30,985	20,158	18,531	9,012	5,126
	KANKAKEE	36,900	2,776	8,424	7,197	5,322	5,567	7,614	OK	9,873	10,524	6,418	5,693	2,832	1,560
	KENDALL	13,900	868	3,771	3,656	2,080	1,641	1,884	OK	2,892	3,596	2,793	2,819	1,320	480
	LAKE	158,880	9,858	39,722	39,489	26,791	21,750	21,250	OK	33,832	44,339	31,196	28,885	13,904	6,644
	LA SALLE	43,100	2,633	8,882	7,553	6,247	7,149	11,436	OK	13,365	12,459	7,233	5,822	2,895	1,326
	LIVINGSTON	14,990	1,048	2,857	2,696	2,128	2,271	3,900	OK	3,944	4,776	2,568	2,043	1,040	529
	MCHENRY	57,380	3,913	14,236	14,431	8,546	7,348	9,708	OK	11,504	16,662	10,956	10,602	5,215	2,361
	WILL	113,080	7,283	31,544	27,800	16,487	14,814	15,872	OK	20,913	30,253	21,702	22,367	11,382	6,383
IR1:	JASPER	9,000	649	2,016	1,907	1,339	1,238	1,831	OK	1,606	2,756	1,543	1,689	923	483
	LAKE	175,100	11,712	39,915	35,367	29,513	28,929	29,724	OK	37,494	49,253	33,734	29,007	15,319	10,293
	LA PORTE	37,480	2,427	8,389	7,287	5,633	5,962	7,702	OK	8,343	11,571	6,885	6,147	2,917	1,537
	NEWTON	5,250	342	1,121	1,102	677	718	1,240	OK	1,138	1,505	916	915	509	217
	PORTER	42,880	3,374	11,622	10,330	6,514	5,389	5,571	OK	8,021	12,264	8,570	8,450	3,986	1,709
WI:	KENOSHA	43,980	3,187	10,089	9,056	6,481	6,552	8,535	OK	11,408	12,867	7,703	6,789	3,492	1,701
CHICAGO ADI TOTAL		3,109,980	187,642	736,994	661,179	490,480	474,132	559,503	OK	819,026	883,921	543,892	466,556	240,870	155,635
		100.00%	6.03%	23.70%	21.26%	15.77%	15.25%	17.99%	99.99%	26.34%	28.42%	17.49%	15.00%	7.75%	5.00%

Source: Sales and Marketing Management Magazine, "Survey of Buying Power Data Service 1987" (New York, NY, Sales and Marketing Management Magazine, 1987)

A.D.I. CUSTOM QUOTA TARGETS

		---- A.D.I. ----	INCOME								
		CHICAGO	UNDER $5000	$5000 - $9999	$10000 - $14999	$15000 - $19999	$20000 - $24999	$25000 - $34999	$35000 - $49999	$50000 OR MORE	
OK	IL:	COOK	150,386	202,549	184,217	181,795	166,141	314,725	350,468	385,719	OK
OK		DE KALB	1,683	2,752	3,043	2,552	2,564	4,826	4,711	3,319	OK
OK		DU PAGE	5,106	8,723	12,717	15,912	17,178	42,426	65,898	96,340	OK
OK		GRUNDY	554	853	1,073	991	1,004	2,175	3,029	2,521	OK
OK		KENDALL	1,028	1,689	1,740	1,558	1,538	2,328	1,598	1,001	OK
OK		KANE	3,989	7,587	9,188	9,867	9,968	21,209	24,880	22,692	OK
OK		KANKAKEE	2,719	4,572	4,352	3,981	4,051	7,295	5,978	3,992	OK
OK		KENDALL	505	890	1,007	1,139	1,464	3,051	3,796	2,048	OK
OK		LAKE	5,552	9,203	10,978	12,022	12,001	25,748	33,807	48,689	OK
OK		LA SALLE	2,858	4,974	4,887	4,591	4,577	8,762	7,996	4,455	OK
OK		LIVINGSTON	1,003	1,573	1,668	1,677	1,770	3,033	2,542	1,634	OK
OK		MCHENRY	1,855	3,541	4,456	4,583	4,861	10,786	14,389	12,829	OK
OK		WILL	5,065	8,111	8,880	8,691	9,318	24,243	28,229	20,523	OK
OK	IN:	JASPER	556	876	1,019	1,002	1,027	1,983	1,457	990	OK
OK		LAKE	15,778	18,265	16,136	15,713	17,296	36,945	34,109	20,858	OK
OK		LA PORTE	2,320	4,040	4,513	4,044	4,015	7,428	7,083	3,957	OK
OK		NEWTON	484	647	645	642	652	1,867	750	333	OK
OK		PORTER	1,688	3,001	3,622	3,539	3,696	9,195	11,187	6,952	OK
OK	WI:	KENOSHA	1,671	3,831	4,080	3,891	3,916	8,110	9,588	8,813	OK
OK	CHICAGO ADI TOTAL		204,800	287,467	278,221	278,220	267,837	535,295	611,395	647,465	OK
100.00%		%	6.59%	9.24%	8.95%	8.95%	8.58%	17.21%	19.66%	20.82%	99.99%

Source: Sales and Marketing Management Magazine, "Survey of Buying Power Data Service 1985" (New York, NY, Sales and Marketing Management Magazine, 1985)

A.D.I. CUSTOM QUOTA TARGETS

A.D.I.		AGE OF HOUSEHOLDER								NUMBER OF PERSONS					
	NEW YORK	TOTAL	UNDER 25	25-34	35-44	45-54	55-64	65+		1	2	3	4	5	6
CT:	FAIRFIELD	296,400	11,856	55,300	66,351	53,301	51,302	59,050	OK	68,090	89,163	54,640	49,201	25,790	11,516
NJ:	BERGEN	314,800	8,155	56,434	64,789	58,831	61,509	67,082	OK	77,440	95,857	59,026	50,012	24,113	10,352
	ESSEX	310,200	14,480	63,856	65,956	50,899	50,381	64,628	OK	82,605	86,697	55,967	45,340	23,231	16,360
	HUDSON	214,900	11,084	43,668	41,082	34,024	36,633	48,489	OK	63,158	60,769	38,287	29,270	14,876	9,340
	HUNTERDON	34,000	934	7,067	9,368	6,039	4,832	5,760	OK	6,589	9,896	6,416	6,544	3,163	1,392
	MIDDLESEX	222,200	10,229	49,408	48,534	39,826	38,914	35,289	OK	49,899	63,028	43,125	38,226	18,834	9,088
	MONMOUTH	198,000	7,129	39,306	45,674	33,799	31,019	41,073	OK	48,335	55,311	34,928	33,525	17,043	8,858
	MORRIS	146,600	4,495	31,887	39,109	27,712	22,240	21,159	OK	29,569	48,595	28,075	28,300	13,884	6,179
	OCEAN	162,500	4,978	29,190	28,192	18,981	24,035	57,124	OK	43,931	56,718	24,138	21,350	11,024	5,339
	PASSAIC	165,600	7,291	33,943	34,182	26,916	27,950	35,309	OK	37,925	47,787	31,624	26,706	13,448	8,092
	SOMERSET	76,300	2,555	15,728	18,405	15,318	12,920	11,374	OK	16,025	22,870	15,054	13,606	6,629	2,916
	SUSSEX	43,300	1,472	11,666	11,984	6,388	5,348	6,522	OK	7,609	12,084	8,395	8,905	4,372	1,935
	UNION	187,600	6,850	33,039	37,039	32,492	36,389	42,591	OK	45,363	56,169	35,766	28,868	14,061	7,373
NY:	BRONX	451,400	25,646	95,290	93,875	68,340	66,471	101,778	OK	137,041	122,674	81,797	59,442	29,756	20,690
	DUTCHESS	88,500	4,533	19,352	20,772	14,656	12,308	16,789	OK	21,011	25,684	15,684	15,141	7,318	3,662
	ERIE	857,500	44,956	194,300	176,640	153,868	136,972	198,784	OK	265,009	250,714	156,127	115,639	58,333	41,676
	NASSAU	445,300	8,415	73,096	92,788	92,745	95,878	82,378	OK	73,477	129,457	90,882	85,879	43,374	22,281
	NEW YORK	756,600	39,655	196,882	158,458	166,113	96,990	158,522	OK	398,256	196,149	78,580	47,428	21,783	14,404
	ORANGE	93,900	4,273	20,947	21,975	14,423	13,429	18,853	OK	19,627	26,825	17,020	14,995	8,636	4,801
	PUTNAM	27,500	780	6,276	7,738	4,692	3,379	4,635	OK	4,926	7,638	4,961	5,355	3,120	1,500
	RKEEVE	748,600	26,172	145,817	142,262	117,942	130,092	187,115	OK	208,865	231,167	131,172	100,254	47,281	29,861
	RICHMOND	127,500	4,634	29,838	30,885	20,810	99,228	22,105	OK	25,494	34,872	23,923	24,497	12,577	6,137
	ROCKLAND	85,700	2,763	17,189	23,668	18,449	12,009	11,622	OK	14,300	21,580	16,548	18,436	9,525	5,311
	SUFFOLK	428,250	12,810	90,954	110,443	79,617	60,722	65,674	OK	66,227	108,891	79,775	88,444	49,523	27,340
	SULLIVAN	26,100	1,221	4,674	4,745	3,961	4,380	7,119	OK	7,489	8,359	4,138	3,483	1,708	923
	ULSTER	61,250	3,279	12,617	12,727	9,489	8,829	14,259	OK	15,837	18,865	10,748	9,106	4,378	2,268
	WESTCHESTER	320,600	9,892	58,896	68,676	57,650	54,758	71,348	OK	82,476	95,867	57,439	49,753	23,384	11,781
PA:	PIKE	8,900	269	1,395	1,526	1,337	1,491	2,684	OK	2,182	3,349	1,473	943	526	227
NEW YORK ADI IDEAL		6,923,900	281,144	1,437,193	1,677,143	1,148,618	1,120,687	1,459,115	OK	1,918,753	1,978,181	1,205,708	1,020,826	508,910	291,522
		100.00%	4.06%	20.76%	21.33%	16.59%	16.19%	21.07%	100.00%	27.71%	28.57%	17.41%	14.74%	7.35%	4.21%

Source: Sales and Marketing Management Magazine, "Survey of Buying Power Data Service 1987" (New York, NY, Sales and Marketing Management Magazine, 1987)

A.D.I. CUSTOM QUOTA TARGETS

		---- A.D.I. ----	INCOME								
		NEW YORK	UNDER $5000	$5000 - $9999	$10000 - $14999	$15000 - $19999	$20000 - $24999	$25000 - $34999	$35000 - $49999	$50000 OR MORE	
OK	CT:	FAIRFIELD	11,280	19,752	20,661	20,890	20,330	39,387	91,265	112,835	OK
OK	NJ:	BERGEN	9,301	19,307	21,158	22,358	22,557	45,603	62,970	113,546	OK
OK		ESSEX	27,926	39,487	31,853	29,608	26,478	44,287	46,332	64,229	OK
OK		HUDSON	19,843	30,727	25,468	23,013	20,449	33,932	32,289	29,179	OK
OK		HUNTERDON	878	1,779	1,923	2,275	2,446	5,159	7,259	12,281	OK
OK		MIDDLESEX	7,664	14,516	15,399	15,689	16,870	37,243	50,545	64,874	OK
OK		MONMOUTH	7,815	16,332	16,618	16,230	15,605	29,811	37,282	58,309	OK
OK		MORRIS	2,720	5,489	6,940	8,089	9,114	20,592	31,947	62,609	OK
OK		OCEAN	6,046	14,765	18,484	18,334	16,104	27,599	30,318	30,950	OK
OK		PASSAIC	10,666	18,890	16,335	15,285	14,376	27,158	29,769	33,921	OK
OK		SOMERSET	1,965	3,560	4,487	4,703	5,149	11,483	16,351	28,682	OK
OK		SUSSEX	1,189	2,302	2,691	3,029	3,389	7,803	10,399	12,698	OK
OK		UNION	9,866	14,684	15,252	15,670	15,160	29,319	36,411	52,038	OK
OK	NY:	BRONX	60,162	87,723	62,827	53,156	41,281	60,376	49,049	36,806	OK
OK		DUTCHESS	3,186	6,703	7,490	7,716	7,461	14,611	18,719	22,754	OK
OK		KINGS	95,446	148,849	115,362	101,607	84,954	126,899	112,847	102,338	OK
OK		NASSAU	10,336	20,866	22,217	24,717	25,577	54,008	89,816	199,363	OK
OK		NEW YORK	66,541	105,768	81,031	76,368	67,341	103,876	95,504	160,171	OK
OK		ORANGE	4,824	8,803	9,685	9,114	8,983	17,062	19,218	16,971	OK
OK		PUTNAM	726	1,436	1,770	1,947	1,907	3,840	6,738	9,136	OK
OK		QUEENS	45,340	79,349	77,176	79,604	75,458	125,868	133,907	123,898	OK
OK		RICHMOND	5,675	9,343	8,860	9,394	9,588	19,149	28,378	37,192	OK
OK		ROCKLAND	2,323	3,939	4,690	5,151	5,094	10,280	17,267	36,956	OK
OK		SUFFOLK	11,852	22,873	27,525	29,728	29,791	63,342	95,528	139,613	OK
OK		WESTCHESTER	12,685	22,359	22,792	24,891	23,425	43,428	56,121	115,779	OK
OK	PA:	POKE	534	1,226	1,358	1,210	1,074	1,490	1,176	852	OK
OK	NEW YORK ADI TOTAL		440,635	728,438	649,726	629,161	578,574	1,017,775	1,180,815	1,701,576	OK
100.00%			6.36%	10.52%	9.38%	9.09%	8.33%	14.70%	17.04%	24.58%	100.00%

Source: Sales and Marketing Management Magazine,"Survey of Buying Power Data Service 1985"(New York,NY, Sales and Marketing Management Magazine, 1985)

A.D.I. CUSTOM QUOTA TARGETS

A.D.I.		AGE OF HOUSEHOLDER								NUMBER OF PERSONS					
DALLAS	TOTAL	UNDER 25	25-34	35-44	45-54	55-64	65+		1	2	3	4	5	6
TX: ANDERSON	14,880	842	2,520	2,660	2,026	2,591	4,621	OK	3,647	4,993	2,681	2,124	998	577
BOSQUE	6,100	222	771	858	689	1,098	2,482	OK	1,767	2,469	765	695	292	132
COLLIN	69,100	3,777	19,876	22,230	9,329	6,083	8,605	OK	9,973	18,643	14,611	16,550	6,666	2,657
COMANCHE	6,990	262	665	726	605	788	1,944	OK	1,264	1,965	690	611	256	134
COOKE	11,380	830	2,244	1,896	1,505	1,780	3,045	OK	2,641	3,807	2,055	1,654	746	397
DALLAS	698,200	65,579	195,449	155,952	101,948	84,086	95,186	OK	198,390	208,904	124,445	97,903	43,522	24,946
DELTA	1,800	62	285	267	180	295	791	OK	529	661	267	221	91	51
DENTON	72,200	7,563	22,517	17,984	8,877	6,632	8,627	OK	14,454	22,986	14,386	13,157	5,166	2,071
ELLIS	25,680	1,391	4,995	5,563	3,726	3,430	6,345	OK	4,867	7,960	4,748	4,456	2,065	1,584
ERATH	10,200	1,102	1,760	1,430	1,171	1,355	3,382	OK	3,094	3,699	1,517	1,233	663	194
FANNIN	9,992	631	1,325	1,556	1,295	1,642	3,711	OK	2,908	3,377	1,680	1,285	513	245
FREESTONE	6,540	364	1,070	922	814	999	2,331	OK	776	2,210	1,868	868	356	222
GRAYSON	37,700	2,597	7,178	6,834	5,108	5,742	10,251	OK	9,648	13,875	6,674	5,370	2,290	933
HAMILTON	3,790	147	445	470	431	624	1,583	OK	1,137	1,443	498	385	179	58
HENDERSON	22,880	1,136	3,266	3,698	3,482	4,383	6,835	OK	5,158	9,175	3,569	2,895	1,391	694
HILL	10,680	661	1,478	1,533	1,377	1,825	3,926	OK	2,914	3,957	1,540	1,248	573	368
HOOD	10,750	732	2,983	1,806	1,610	2,036	2,513	OK	2,136	4,486	1,816	1,454	581	227
HOPKINS	11,100	757	4,028	1,903	1,329	1,637	3,446	OK	2,607	3,961	1,873	1,662	687	310
HUNT	24,960	1,965	4,271	4,756	3,586	3,687	6,695	OK	6,225	8,577	4,374	3,653	1,443	828
JACK	3,000	191	518	642	615	638	598	OK	766	1,135	679	390	171	79
JOHNSON	32,480	2,048	6,590	7,584	5,834	4,255	6,969	OK	5,955	10,216	6,302	6,087	2,683	1,157
KAUFMAN	17,100	790	3,092	3,616	2,509	2,523	4,680	OK	3,730	5,622	3,150	2,705	1,267	826
LAMAR	17,060	1,045	2,887	3,118	2,229	2,620	5,101	OK	4,377	5,716	2,830	2,384	1,099	594
NAVARRO	15,280	805	2,488	2,367	1,987	2,312	5,261	OK	4,018	5,339	2,486	2,048	853	536
PALO PINTO	10,880	648	1,745	1,761	1,618	1,652	2,796	OK	2,560	3,640	1,653	1,417	610	320
PARKER	21,100	1,154	3,986	4,677	3,491	3,158	4,654	OK	3,963	7,896	4,110	3,632	1,631	670
RAINS	2,580	125	338	395	345	470	831	OK	749	875	608	298	126	44
ROCKWALL	8,660	575	1,881	2,381	1,539	1,106	1,318	OK	1,574	2,541	1,864	1,750	634	317
SOMERVELL	1,980	166	447	313	264	260	490	OK	540	588	328	277	110	48
TARRANT	348,260	35,634	102,639	86,752	60,671	52,809	59,695	OK	93,108	126,760	75,974	62,908	28,584	13,886
VAN ZANDT	15,280	618	2,196	2,775	2,164	2,612	4,837	OK	3,290	5,769	2,667	2,189	1,024	681
WISE	12,360	716	2,214	2,544	1,880	1,830	3,108	OK	2,382	4,290	2,192	2,066	909	461
WOOD	11,280	543	1,626	1,812	1,423	1,962	3,834	OK	2,608	4,349	1,880	1,479	654	310
DALLAS ADI TOTAL	1,617,680	135,016	405,853	353,187	234,473	208,490	280,581	OK	406,696	509,932	296,540	246,812	108,343	55,277
	100.00%	8.35%	25.09%	21.83%	14.50%	12.89%	17.35%	99.99%	25.82%	31.52%	18.21%	15.26%	6.57%	3.42%

Source: Sales and Marketing Management Magazine, "Survey of Buying Power Data Service 198?"(New York,NY, Sales and Marketing Management Magazine, 198?)

A.D.I. CUSTOM QUOTA TARGETS

	A.D.I.	INCOME								
	DALLAS	UNDER $5000	$5000 - $9999	$10000 - $14999	$15000 - $19999	$20000 - $24999	$25000 - $34999	$35000 - $49999	$50000 OR MORE	
OK	TX: ANDERSON	1,991	2,390	1,760	1,585	1,405	2,311	1,965	1,395	OK
OK	BOSQUE	596	995	822	735	608	863	840	643	OK
OK	COLLIN	2,476	4,278	4,387	4,553	4,614	9,576	14,379	24,637	OK
OK	COMANCHE	640	982	783	611	397	577	453	457	OK
OK	COOKE	988	1,511	1,557	1,256	1,133	2,150	1,562	1,143	OK
OK	DALLAS	42,640	58,753	71,936	75,506	69,952	120,736	120,190	138,487	OK
OK	DELTA	233	378	267	184	165	267	170	136	OK
OK	DENTON	3,913	5,496	6,071	6,081	5,736	11,438	15,265	18,200	OK
OK	ELLIS	1,985	3,129	2,662	2,345	2,177	4,355	4,716	4,031	OK
OK	ERATH	1,281	1,777	1,521	1,151	1,047	1,450	983	1,010	OK
OK	FANNIN	1,345	1,872	1,360	1,214	943	1,578	923	645	OK
OK	FREESTONE	900	1,205	781	668	528	821	859	759	OK
OK	GRAYSON	2,682	4,881	4,553	4,289	3,840	6,381	6,157	4,917	OK
OK	HAMILTON	436	803	589	447	334	519	350	222	OK
OK	HENDERSON	2,235	3,411	3,141	2,706	2,244	3,867	2,914	2,282	OK
OK	HILL	1,272	1,941	1,615	1,235	1,018	1,485	1,147	907	OK
OK	HOOD	534	1,036	1,071	1,055	946	1,587	2,121	2,350	OK
OK	HOPKINS	1,277	1,795	1,710	1,509	1,117	1,620	1,188	884	OK
OK	HUNT	2,641	3,213	3,007	2,648	2,346	4,049	3,696	3,300	OK
OK	JACK	279	587	458	335	348	514	309	250	OK
OK	JOHNSON	2,122	3,454	3,423	3,087	2,981	6,092	6,527	4,714	OK
OK	KAUFMAN	1,577	2,412	2,118	1,662	1,587	2,596	2,816	2,412	OK
OK	LAMAR	1,954	2,731	2,168	1,988	1,721	2,540	2,065	1,813	OK
OK	NAVARRO	1,607	2,715	2,307	1,719	1,371	2,170	1,880	1,511	OK
OK	PALO PINTO	1,036	1,598	1,385	1,361	1,139	1,535	1,051	913	OK
OK	PARKER	1,587	2,435	2,278	2,043	1,935	3,684	3,994	3,144	OK
OK	RAINS	361	470	331	292	309	370	190	177	OK
OK	ROCKWALL	633	683	666	641	659	1,556	1,717	2,045	OK
OK	SOMERVELL	221	252	246	209	178	365	253	176	OK
OK	TARRANT	22,752	35,638	40,698	40,556	38,485	71,176	75,748	75,167	OK
OK	VAN ZANDT	1,368	2,572	2,274	1,715	1,368	2,397	2,143	1,363	OK
OK	WISE	867	1,517	1,433	1,160	1,079	2,111	2,051	2,102	OK
OK	WOOD	1,179	1,835	1,652	1,285	1,023	1,776	1,522	1,010	OK
OK	DALLAS ADI TOTAL	107,758	158,655	171,050	167,749	154,653	274,492	280,062	303,181	OK
100.00%	S	6.66%	9.81%	10.57%	10.37%	9.56%	16.97%	17.32%	18.74%	100.01%

Source: Sales and Marketing Management Magazine,"Survey of Buying Power Data Service 1987"(New York,NY, Sales and Marketing Management Magazine, 1987)

APPENDIX B
SURVEY QUESTIONNAIRE

The number of respondents for each question is shown below. Code numbers correspond to those shown beside each answer box in the questionnaire.

Code No.	No. of Respondents
100	3,991
110	3,991
200	3,959
210	3,991
220	3,991
400	3,540
500	3,554
600	3,584
604	3,585
608	3,585
612	3,585
616	3,585
620	3,585
624	3,585
628	3,585
636	3,585
640	3,585
644	3,585
648	3,585
652	3,585
656	3,585
670	3,526
680	3,483
690	3,388
700	3,498
710	3,385
810	3,244
820	3,178
830	1,318
840	1,117
900	3,423
910	1,359
920	3,261
1000	3,446
1010	1,128
1020	3,404
1100	3,361
1200	1,124
1300	1,142
1400	1,139
1500	3,375
1510	3,161
1600	3,483
1700	3,074
1710	3,034
1720	3,020
1730	3,028
1740	3,027
1750	3,043
1760	3,029
1770	3,007
1780	3,028
1790	3,035
1800	1,762
1900	3,557
1910	1,168
2000	3,531
2010	3,099
2100	3,535
2200	999
2300	3,495
2400	3,524
2410	3,112
2500	3,538
2600	1,256
2700	3,471
2900	4,001
3000	3,962
3100	3,954
3200	3,947

Consumer Mail Panel

P.O. Box 4602, North Suburban, IL 60197-4602

Dear Panel Member,

Please give this questionnaire to the adult member of your household 18 years or older who had the most recent birthday. This, of course, may be you.

To the person who is completing this questionnaire,

Your answers to my questions will be analyzed to develop a profile of present fish and seafood consumption patterns and consumer preferences. I am specifically interested in fresh/frozen fish and seafood purchased at retail outlets for home consumption, and in fish and seafood purchased in restaurants. Canned, pickled, breaded, appetizers and sport-caught fish and seafood are excluded. As always, your individual answers will be kept confidential.

Please answer the following questions to the best of your ability.

Cordially,

Marie

---

1. How often do you eat the following at home?

   (1) once a week
   (2) twice a week
   (3) once a month
   (4) every three months
   (5) rarely
   (6) never

   Select 1,2,3,4,5 or 6 and enter ☞

   Fresh/Frozen fish or seafood ☐ 109

   Fresh/Frozen salmon ☐ 110

2a. How often do you eat out at a restaurant?

   (1) three times a week
   (2) once a week
   (3) twice a month
   (4) once a month
   (5) every three months
   (6) rarely

   Select 1,2,3,4,5 or 6 and enter ☞ ☐ 200

2b. How often do you eat the following in a restaurant?

   (1) once a week
   (2) twice a month
   (3) once a month
   (4) every three months
   (5) rarely
   (6) never

   Select 1,2,3,4,5 or 6 and enter ☞

   Fish or seafood ☐ 210

   Salmon ☐ 220

   If you answered 1,2,3,4 or 5, go to Q.4

3. If you "never" eat fish or seafood at home or in a restaurant, why not?

   _____

   _____

   _____

   _____

   _____

   If you "never" eat fish or seafood at home or in a restaurant, go to Q. 29.

---

4. What would you say is the main reason why you eat fresh/frozen fish or seafood?

   (1) like the taste
   (2) health/nutrition reasons
   (3) provides variety to diet
   (4) easy to prepare
   (5) makes a light meal
   (6) good value
   (7) other (specify) _____

   Select 1,2,3,4,5, 6 or 7 and enter ☞ ☐ 430

5. Are you eating more fresh/frozen fish and seafood now than you used to?

   (1) yes
   (2) no
   (3) don't know

   Select 1,2 or 3 and enter ☞ ☐ 520

6a. Which of the following species of fresh/frozen fish and seafood have you consumed in the past 12 months? *(check all those that apply)*

	Consumed at Home	Consumed at Restaurant	
(1) Shrimp*	☐	☐	600
(2) Salmon	☐	☐	604
(3) Lobster	☐	☐	608
(4) Oysters	☐	☐	612
(5) Swordfish	☐	☐	616
(6) Trout	☐	☐	620
(7) Crab	☐	☐	624
(8) Catfish	☐	☐	628
(9) Cod	☐	☐	632
(10) Scallops	☐	☐	636
(11) Halibut	☐	☐	640
(12) Walleye	☐	☐	644
(13) Sole/Flounder	☐	☐	648
(14) Other "white" fish, (e.g. haddock)	☐	☐	652
(15) Other (specify) _____	☐	☐	656

*Includes prawns

6b. Of those types listed above, which would be your favorite three? (Ignore price differences among types) *Select three products from 1 through 15 and enter*

1st favorite ☐☐ 670

2nd favorite ☐☐ 680

3rd favorite ☐☐ 690

7. On a scale of 1 to 10 how would you compare shrimp and salmon to other fish and seafood? *(1 is the worst, 10 is the best - you may use any number in between)*

Shrimp ☐☐ 700

Salmon ☐☐ 710

8. Which answer below best describes your consumption patterns?

(1) eat more in summer (May-Oct)?
(2) eat more in winter (Nov-Apr)?
(3) or eat equally throughout the year?

Select 1,2 or 3 and enter

All fish and seafood:	at home	☐ 810
	in restaurants	☐ 820
Specifically salmon:	at home	☐ 830
	in restaurants	☐ 840

9a. When you or your family eat fresh/frozen fish or seafood at home, where is it generally purchased?

(1) supermarket or grocery
(2) fish or seafood market
(3) gourmet specialty store
(4) local live market/fish farm
(5) restaurant take-out
(6) it varies
(7) don't know

Select 1,2,3,4,5, 6 or 7 and enter

All fish and seafood ☐ 900

Specifically salmon ☐ 910

9b. When you purchase a particular fresh/frozen fish or seafood item in a retail store, is it usually because it:

(1) is one of your favorites
(2) includes a recipe
(3) is at the recommendation of a salesperson
(4) is advertised in a newspaper
(5) is an in-store special
(6) other (specify) _____

Select 1,2,3,4,5 or 6 and enter ☐ 920

10a. In what type of restaurant do you usually eat fish or seafood?

(1) specialty fish restaurant
(2) other white table cloth (expensive)
(3) family
(4) inexpensive ethnic
(5) fast food

Select 1,2,3,4 or 5 and enter

All fish and seafood ☐ 1000

Specifically salmon ☐ 1010

10b. When you order a particular fish or seafood restaurant meal, is it usually because it is:

(1) a daily feature
(2) at the recommendation of your server
(3) on the fresh sheet
(4) a specialty of the restaurant
(5) one of your favorites
(6) other (specify) _____

Select 1,2,3,4,5 or 6 and enter ☐ 1020

11. What form of fresh/frozen salmon do you generally purchase for home consumption?

(1) fresh fillets
(2) fresh steaks
(3) fresh whole fish with or without head
(4) prepared entrees
(5) frozen fillets
(6) frozen steaks
(7) frozen whole fish with or without head
(8) don't know/don't buy salmon

Select 1,2,3,4,5,6,7 or 8 and enter ☐ 1100

If you have not eaten fresh salmon at home in the past 12 months, go to Q.15.

12. If you buy fresh salmon from retail outlet, do you usually:

(1) eat it the same day
(2) eat it the following day
(3) freeze it for another day
(4) other (specify) _____

Select 1,2,3 or 4 and enter ☐ 1200

13. How do you normally serve fresh salmon?

(1) as a family meal
(2) as a meal for one or two
(3) when entertaining friends
(4) on special occasions
(5) other (specify) _____

Select 1,2,3,4 or 5 and enter ☐ 1300

14. How do you normally prepare fresh salmon?

(1) poached
(2) broiled
(3) baked
(4) fried
(5) microwaved
(6) barbecued
(7) other (specify) _____

Select 1,2,3,4,5,6 or 7 and enter ☐ 1400

15. If fresh salmon were available on a year-round basis, how much more frequently would you purchase it?

(1) the same
(2) twice a month
(3) once a month
(4) every three months
(5) rarely
(6) don't know

Select 1,2,3,4,5 or 6 and enter

For home consumption ☐ 1500

At a restaurant ☐ 1510

16. Do you think your consumption of salmon would increase if a quality sticker or the packaging guaranteed high quality and freshness?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☐ 1600

17. Using a scale of 1 to 10, where 1 means strong disagreement and 10 means strong agreement, do you agree or disagree with the following statements about fresh salmon? *(You may use any number in between)*

(1) Salmon is readily available ☐ 1700
(2) Salmon is of consistently high quality ☐ 1710
(3) Salmon has attractive appearance and packaging ☐ 1720
(4) Salmon has no undesirable fish odor ☐ 1730
(5) Salmon has a mild, delicate flavor ☐ 1740
(6) Salmon is of high nutritional value ☐ 1750
(7) Salmon has few bones ☐ 1760
(8) Salmon is easy to prepare at home ☐ 1770
(9) Salmon is inexpensive compared to other meat ☐ 1780
(10) Salmon is inexpensive compared to other fish and seafood ☐ 1790

18. When you think of fresh salmon, what producing country or region outside of the U.S.A. comes to mind, if any?

_____ _____
write in answer 1800

19a. Have you ever heard of farmed salmon?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☐ 1900

19b. If yes, do you perceive farmed salmon as different from other salmon?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☐ 1910

20. How do you consider the price of fish and seafood in restaurants as compared to the price of other meals available?

(1) too high/poor value
(2) good value
(3) about the same value
(4) no opinion

Select 1,2,3 or 4 and enter ☞

Fish and seafood generally? ☐ 2000

Specifically salmon? ☐ 2010

21. Have you eaten a main course of salmon in a restaurant in the past 12 months?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☐ 2100

If you entered 2 (no) then go to Q.23.

22. If the price of that salmon meal was $2.00 higher, do you think you would have still ordered it?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☞ ☐ 2200

23. If the price of salmon meals in restaurants were $2.00 lower, do you think you would order salmon more often?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☞ ☐ 2300

24. How do you consider the price of fresh or frozen fish or seafood in retail stores as compared to the price of meat, poultry or other substitutes?

(1) too high/poor value
(2) good value
(3) about the same value
(4) no opinion

Select 1,2,3 or 4 and enter ☞

Fish and seafood generally? ☐ 2400

Specifically salmon? ☐ 2410

25. Have you eaten a meal of salmon at home in the past 12 months?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☞ ☐ 2500

If you entered 2 (no), go to Q.27.

26. If the price of salmon from the retail outlet was $1.00 per pound higher, do you think you would have still purchased it?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☞ ☐ 2600

27. If the price of salmon was $1.00 per pound lower, do you think you would purchase salmon more often?

(1) yes
(2) no
(3) don't know

Select 1,2 or 3 and enter ☞ ☐ 2700

28. What other comments concerning fresh/frozen fish and seafood consumption in general, and salmon consumption in particular, do you have?

_____

_____

_____

_____

_____

29. Are you:

(1) Male
(2) Female

Select 1 or 2 and enter ☞ ☐ 2900

30. To which age group do you belong?

(1) Under 30
(2) 30-39 years
(3) 40-49 years
(4) 50-59 years
(5) 60 years or older

Select 1,2,3,4 or 5 and enter ☞ ☐ 3000

31. At present, are you:

(1) working
(2) at school or training
(3) looking for a job
(4) taking care of household
(5) retired
(6) other (sick, disabled, etc.)

Select 1,2,3,4,5 or 6 and enter ☞ ☐ 3100

32. Are you the panel member?

(1) yes
(2) no

Select 1 or 2 and enter ☞ ☐ 3200

Thank you for your cooperation. Please return your questionnaire in the postage paid envelope provided.

APPENDIX C

EXHIBIT PERCENTAGES

1.1 FRESH/FROZEN SALMON IMPORTS TO THE U.S. 1985-1988 (METRIC TONNES)

	1985	1986	1987	1988
WHOLE FRESH	8,742,000	12,918,000	13,656,000	17,798,000
WHOLE FROZEN	3,521,000	5,474,000	5,356,000	4,947,000
FILLETS FR & FRZ	770,000	657,000	1,240,000	1,607,000

1.2 IMPORTS OF FRESH WHOLE SALMON TO THE U.S. 1985-1988 (METRIC TONNES)

	1985	1986	1987	1988
FROM CANADA	1,481,000	2,480,000	3,656,000	6,460,000
FROM ALL OTHER	8,742,000	12,918,000	13,656,000	17,798,000

2.1 AGE DISTRIBUTION OF RESPONDENTS

	SEAFOOD	NON-SEAFOOD
< 30	14%	27%
30 - 39	23%	24%
40 - 49	25%	14%
50 - 59	15%	12%
> 60	23%	23%

2.2 HOUSEHOLD INCOME OF RESPONDENTS

	SEAFOOD	NON-SEAFOOD
< $12,500	19%	29%
$12,000 - $19,999	14%	16%
$20,000 - $27,499	12%	14%
$27,500 - $39,999	19%	12%
$40,000 - $49,999	12%	13%
$50,000 - $59,999	9%	3%
> $60,000	15%	3%

2.3 NUMBER OF PERSONS PER RESPONDENT HOUSEHOLD

	SEAFOOD	NON-SEAFOOD
ONE	27%	32%
TWO	31%	29%
THREE	17%	16%
FOUR	14%	13%
FIVE	7%	5%
SIX	4%	5%

2.4 FREQUENCY OF SEAFOOD CONSUMPTION

	AT HOME	RESTAURANT
ONCE/WEEK	29%	13%
TWICE/MONTH	14%	15%
ONCE/MONTH	24%	19%
ONCE/3 MONTHS	8%	19%
RARELY	15%	21%
NEVER	15%	14%

2.5 PRIMARY REASON FOR EATING FISH AND SEAFOOD

	ALL SEAFOOD
LIKE THE TASTE	39%
HEALTH/NUTRITION	33%
ADDS VARIETY TO DIET	17%
EASY TO PREPARE	4%
MAKES A LIGHT MEAL	4%
GOOD VALUE	1%
OTHER	2%

2.6 PERCENTAGE OF RESPONDENTS CONSUMING SPECIFIC FRESH/FROZEN FISH AND SEAFOOD

	AT HOME	IN A RESTAURANT
SHRIMP	65%	74%
SALMON	39%	39%
SOLE/FLOUNDER	39%	34%
OTHER WHITE FISH	37%	27%
COD	29%	19%
CRAB	29%	39%
HALIBUT	29%	23%
SCALLOPS	23%	39%
CATFISH	22%	21%
TROUT	19%	18%
SWORDFISH	11%	19%
LOBSTER	13%	42%
OYSTERS	12%	19%
OTHER	17%	11%

2.8 USUAL REASONS FOR PURCHASING PARTICULAR SEAFOOD IN A RETAIL STORE

	ALL SEAFOOD
FAVOURITE	69%
IN STORE SPECIAL	17%
ADVERTISED IN NEWSPAPER	9%
OTHER REASON	5%
INCLUDES RECIPE	1%
RECOMMENDED BY SALESPERSON	1%

2.10 USUAL REASON FOR PURCHASING PARTICULAR SEAFOOD IN A RESTAURANT

	ALL SEAFOOD
FAVOURITE	69%
SPECIALTY OF RESTAURANT	13%
ON FRESH SHEET	8%
DAILY FEATURE	6%
RECOMMENDED BY SALESPERSON	2%
OTHER	2%

2.12 AGE DISTRIBUTION OF SALMON CONSUMERS

	SALMON	NON-SALMON SEAFOOD
< 30	13%	16%
30 - 39	21%	24%
40 - 49	21%	19%
50 - 59	16%	13%
> 60	29%	28%

2.13 HOUSEHOLD INCOME OF SALMON CONSUMERS

	SALMON	NON-SALMON SEAFOOD
< $12,500	13%	22%
$12,000 - $19,999	13%	19%
$20,000 - $27,499	12%	12%
$27,500 - $39,999	23%	23%
$40,000 - $49,999	12%	11%
$50,000 - $59,999	10%	3%
> $60,000	23%	11%

2.14 PERSONS PER HOUSEHOLD - SALMON CONSUMERS

	SALMON	NON-SALMON SEAFOOD
ONE	28%	29%
TWO	39%	28%
THREE	16%	15%
FOUR	13%	16%
FIVE	5%	9%
SIX	3%	4%

2.15 FREQUENCY OF SEAFOOD CONSUMPTION BY SALMON CONSUMERS (AT HOME CONSUMPTION)

	SALMON	NON-SALMON SEAFOOD
ONCE/WEEK	39%	24%
TWICE/MONTH	21%	13%
ONCE/MONTH	23%	28%
ONCE/3 MONTHS	7%	11%
RARELY	11%	21%
NEVER	9%	4%

2.15 FREQUENCY OF SEAFOOD CONSUMPTION BY SALMON CONSUMERS (RESTAURANT CONSUMPTION)

	SALMON	NON SALMON SEAFOOD
ONCE/WEEK	33%	19%
TWICE/MONTH	21%	14%
ONCE/MONTH	23%	23%
ONCE/3 MONTHS	18%	32%
RARELY	16%	29%
NEVER	2%	5%

2.16 PRIMARY REASON FOR EATING FISH AND SEAFOOD

	SALMON	NON SALMON SEAFOOD
LIKE THE TASTE	39%	38%
HEALTH/NUTRITION	36%	29%
ADDS VARIETY TO DIET	16%	19%
EASY TO PREPARE	3%	3%
MAKES A LIGHT MEAL	3%	3%
GOOD VALUE	1%	2%
OTHER	3%	3%

2.18 FRESH/FROZEN SALMON CONSUMPTION BY ADI

	SALMON
SAN FRANCISCO	56%
LOS ANGELES	49%
CHICAGO	42%
DALLAS	37%
NEW YORK	28%

2.19 ATTRIBUTE RATING FOR FRESH/FROZEN SALMON*

	SALMON	NON-SALMON SEAFOOD
SALMON IS READILY AVAILABLE	6.1	5.5
SALMON IS CONSISTENTLY HIGH QUALITY	6.3	5.2
SALMON HAS AN ATTRACTIVE APPEARANCE	6.5	5.2
SALMON HAS AN UNDESIRABLE FISH ODOUR	6.4	4.0
SALMON HAS A MILD, DELICATE FLAVOUR	7.5	5.3
SALMON HAS HIGH NUTRITIONAL VALUE	6.1	5.0
SALMON HAS FEW BONES	7.1	5.6
SALMON IS EASY TO PREPARE AT HOME	7.0	5.5
SALMON IS INEXPENSIVE COMPARED TO MEAT	4.2	4.0
SALMON IS INEXPENSIVE COMPARED TO OTHER SEAFOOD	4.3	4.1

* 1 means strong disagreement and 10 means strong agreement.

2.20 IF FRESH SALMON WERE AVAILABLE ON A YEAR-ROUND BASIS, HOW MUCH MORE FREQUENTLY WOULD YOU PURCHASE IT? (AT HOME)

	SALMON	NON SALMON SEAFOOD
NO CHANGE	37%	10%
TWICE/MONTH MORE	18%	3%
ONCE/MONTH MORE	13%	3%
ONCE/2 MONTHS MORE	9%	3%
RARELY MORE	11%	34%
DON'T KNOW	14%	45%

2.20 IF FRESH SALMON WERE AVAILABLE ON A YEAR-ROUND BASIS, HOW MUCH MORE FREQUENTLY WOULD YOU PURCHASE IT? (AT A RESTAURANT)

	SALMON	NON-SALMON SEAFOOD
NO CHANGE	39%	11%
TWICE/MONTH MORE	6%	1%
ONCE/MONTH MORE	16%	2%
ONCE/3 MONTHS MORE	11%	6%
RARELY MORE	13%	33%
DON'T KNOW	16%	49%

2.21 AWARENESS OF SUPPLY REGION When you think of fresh salmon, what producing country or region outside of the (Lower 48) USA comes to mind?

CANADA	37%
ALASKA	29%
NORWAY	9%
JAPAN	7%
NOVA SCOTIA	3%
SCANDINAVIA	3%
RUSSIA	3%
SCOTLAND	3%
BRITISH COLUMBIA	1%
OTHER	6%

2.22 AWARENESS OF FARMED SALMON

HAVE HEARD OF FARMED SALMON

NEW YORK	39%
DALLAS	28%
CHICAGO	33%
LOS ANGELES	39%
SAN FRANCISCO	41%

PERCEIVE NO DIFFERENCE IN FARMED VERSUS OTHER SALMON

NEW YORK	68%
DALLAS	73%
CHICAGO	62%
LOS ANGELES	73%
SAN FRANCISCO	71%

2.23 RETAIL OUTLET TYPE FOR PURCHASES OF FRESH/FROZEN SALMON

	SALMON ONLY	ALL FISH AND SEAFOOD
SUPERMARKETS	62%	68%
FISH MARKETS	23%	18%
GOURMET STORES	2%	1%
LIVE FISH MARKETS	2%	2%
TAKEOUT/ FOOD MARKETS	1%	2%
VARIES	10%	10%

2.24 PRODUCT FORM OF SALMON MOST OFTEN PURCHASED IN RETAIL OUTLETS

FISH STEAKS	39%
FRESH FILLETS	33%
FROZEN FILLETS	11%
FRESH WHOLE FISH	7%
FROZEN STEAKS	6%
PREPARED ENTREES	5%
FROZEN WHOLE FISH	2%

2.25 HOW DO YOU NORMALLY PREPARE FRESH SALMON?

BROILED	37%
BAKED	27%
POACHED	16%
FRIED	9%
BARBECUED	9%
MICROWAVED	5%
OTHER	3%

2.26 IF YOU BUY FRESH SALMON FROM A RETAIL OUTLET, DO YOU USUALLY:

EAT IT THE SAME DAY	87%
EAT IT THE NEXT DAY	19%
FREEZE IF FOR ANOTHER DAY	15%
OTHER	2%

2.27 HOW DO YOU NORMALLY SERVE FRESH SALMON?

AS A FAMILY MEAL/ONE OR TWO PERSONS	88%
ENTERTAINING/SPECIAL OCCASIONS	10%
OTHER	1%

2.28 RESTAURANT TYPE

	SALMON	ALL FISH & SEAFOOD
SPECIALTY FISH	59%	49%
OTHER WHITE TABLECLOTH	26%	18%
FAMILY	22%	30%
ETHNIC	3%	4%
FAST FOOD	0%	9%

3.1 PERCEPTIONS REGARDING CURRENT SALMON PRICES

(RETAIL PURCHASES)	SALMON	NON-SALMON SEAFOOD
TOO HIGH	48%	60%
GOOD VALUE	21%	13%
THE SAME VALUE	31%	27%

(RESTAURANT MEALS)	SALMON	NON-SALMON SEAFOOD
TOO HIGH	39%	49%
GOOD VALUE	28%	19%
THE SAME VALUE	49%	39%

3.2 SHARE OF CURRENT SALMON CONSUMERS WILLING TO PAY INCREASED SALMON PRICES

(HOME/RETAIL CONSUMPTION)

$0.50/LB MORE	69%
$1.00/LB MORE	53%
$1.50/LB MORE	44%
$2.50/LB MORE	28%
$4.00/LB MORE	16%

(RESTAURANT CONSUMPTION)

$1.00/LB MEAL MORE	81%
$2.00/LB MEAL MORE	57%
$3.00/LB MEAL MORE	47%
$5.00/LB MEAL MORE	34%
$8.00/LB MEAL MORE	23%

5 3 SHARE OF CURRENT SEAFOOD CONSUMERS WILLING TO PURCHASE MORE SALMON AT LOWER SALMON PRICES

(HOME/RETAIL CONSUMPTION)

	SALMON	NON-SALMON SEAFOOD
$0.50/LB LESS	59%	21%
$1.00/LB LESS	71%	24%
$1.50/LB LESS	78%	35%
$2.50/LB LESS	96%	35%
$4.00/LB LESS	99%	38%

(RESTAURANT CONSUMPTION)

	SALMON	NON-SALMON SEAFOOD
$1.50/LB MEAL LESS	57%	20%
$2.00/LB MEAL LESS	71%	30%
$3.00/LB MEAL LESS	79%	37%
$5.00/LB MEAL LESS	95%	39%
$8.00/LB MEAL LESS	92%	40%